Magnesium From The People's Republic of China, Russia, and Ukraine

Investigations Nos. 731-TA-696-698 (Preliminary)

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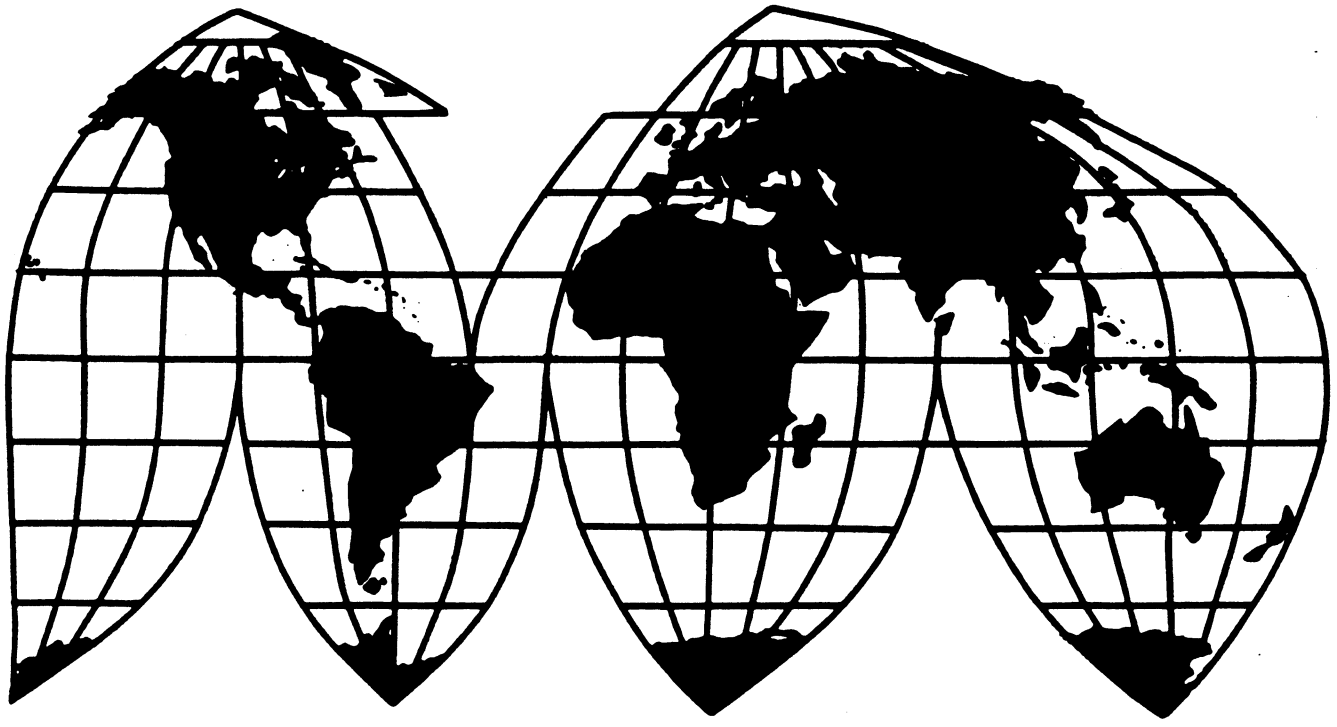
U.S. International Trade Commission



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U.S. International Trade Commission

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Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

Washington, DC 20436

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PART I

DETERMINATIONS AND VIEWS OF THE COMMISSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

MAGNESIUM FROM THE PEOPLE'S REPUBLIC OF CHINA, RUSSIA, AND UKRAINE

INVESTIGATIONS NOS. 731-TA-696-698 (PRELIMINARY)

DETERMINATIONS

Pure Magnesium

On the basis of the record developed in investigations Nos. 731-TA-696-698 (Preliminary),[1] the Commission determines,[2] pursuant to section 733(a) of the Tariff Act of 1930 (the Act),[3] that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of unwrought pure magnesium[4] from the People's Republic of China (China), the Russian Federation (Russia), and Ukraine, that are alleged to be sold in the United States at less than fair value (LTFV).

Alloy Magnesium

On the basis of the record developed in investigations Nos. 731-TA-696-697 (Preliminary), the Commission further determines,[5] pursuant to the Act, that there is a reasonable indication that an industry in the United States is materially injured by

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

[2] Commissioner Bragg did not participate in the determinations in these investigations.

[3] 19 U.S.C. § 1673b(a).

[4] Unwrought pure magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Products that have the aforementioned primary magnesium content but do not conform to ASTM specifications or other industry or customer-specific specifications are included in the scope of these investigations. Pure unwrought magnesium is provided for in subheadings 8104.11.00 and 8104.20.00 of the Harmonized Tariff Schedule of the United States (HTS). Excluded from the scope of investigation are magnesium anodes, granular magnesium (including turnings and powder), and secondary magnesium. *See also,* Commerce's scope of investigation in its notice of initiation, 59 F.R. 21748.

[5] Commissioner Crawford dissenting. Commissioner Bragg did not participate in the determinations in these investigations.

reason of imports of unwrought alloy magnesium[6] from China and Russia, that are alleged to be sold in the United States at less than fair value (LTFV).

On the basis of the record developed in investigation No. 731-TA-698 (Preliminary), the Commission also determines,[7] pursuant to the Act, that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury or that the establishment of an industry in the United States is materially retarded, by reason of imports of unwrought alloy magnesium from Ukraine, that are alleged to be sold in the United States at less than fair value (LTFV).

BACKGROUND

On March 31, 1994, a petition was filed with the Commission and the U.S. Department of Commerce (Commerce) by Magnesium Corporation of America (Magcorp), Salt Lake City, UT; the International Union of Operating Engineers, Local 564, Freeport, TX; and the United Steelworkers of America, Local 8319, Salt Lake City, UT. Accordingly, effective March 31, 1994, the Commission instituted preliminary antidumping investigations Nos. 731-TA-696-698 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of April 12, 1994.[8] The conference was held in Washington, DC, on April 21, 1994, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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[6] Unwrought alloy magnesium contains less than 99.8 percent magnesium by weight but 50 percent or more magnesium by weight, with magnesium being the largest metallic element in the alloy by weight, and is sold in various ingot and billet forms and sizes. Products that have the aforementioned primary magnesium content but do not conform to ASTM specifications or other industry or customer-specific specifications are included in the scope of these investigations. Alloy unwrought magnesium are provided for in subheadings 8104.19.00 and 8104.20.00 of the HTS. Excluded from the scope of investigation are magnesium anodes, granular magnesium (including turnings and powder), and secondary magnesium. *See also,* Commerce's scope of investigation in its notice of initiation, 59 F.R. 21748.

[7] Chairman Newquist dissenting. Commissioner Bragg did not participate in the determinations in this investigation.

[8] 59 F.R. 17399.

VIEWS OF CHAIRMAN NEWQUIST, VICE CHAIRMAN WATSON, COMMISSIONER CRAWFORD AND COMMISSIONER NUZUM[1]

Based on the record in these preliminary investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of pure magnesium from China, Russia, and Ukraine that are allegedly sold in the United States at less than fair value ("LTFV"). We also determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of alloy magnesium from China and Russia that are allegedly sold in the United States at LTFV.[2] We determine that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of alloy magnesium from Ukraine that are allegedly sold at LTFV.[3] [4]

I. THE LEGAL STANDARD FOR PRELIMINARY DETERMINATIONS

The legal standard in preliminary antidumping duty investigations requires the Commission to determine, based upon the best information available at the time of the preliminary determination, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury by reason of the allegedly LTFV imports.[5] In applying this standard, the Commission weighs the evidence before it and determines whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of material injury; and (2) no likelihood exists that any contrary evidence will arise in a final investigation."[6] The U.S. Court of Appeals for the Federal Circuit has held that this interpretation of the standard "accords with clearly discernible legislative intent and is sufficiently reasonable."[7]

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[1] Commissioner Bragg did not participate in the determinations in these investigations.

[2] Commissioner Crawford finds that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of alloy magnesium from China and Russia that are allegedly sold at LTFV. See Dissenting Views of Commissioner Crawford, infra.

[3] Chairman Newquist finds that there is a reasonable indication that a domestic industry is threatened with material injury by reason of allegedly LTFV imports of alloy magnesium from Ukraine. See Additional and Dissenting Views of Chairman Newquist, infra.

[4] Whether there is a reasonable indication that the establishment of an industry in the United States is materially retarded is not an issue in these investigations.

[5] 19 U.S.C. § 1673b(a). See also American Lamb Co. v. United States, 785 F.2d 994 (Fed. Cir. 1986); Calabrian Corp. v. U.S. Int'l Trade Comm'n, 794 F. Supp. 377, 381 (Ct. Int'l Trade 1992).

[6] American Lamb Co. v. United States, 785 F.2d at 1001. See also Torrington Co. v. United States, 790 F. Supp. 1161, 1165 (Ct. Int'l Trade 1992).

[7] American Lamb Co. v. United States, 785 F.2d at 1004. See also Connecticut Steel Corp. v. United States, 18 CIT ___, Slip Op. No. 94-64 (April 22, 1994) (the Commission need not find each piece of evidence to be clear and convincing under the American Lamb standard.)

II. LIKE PRODUCT

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of the subject imports, the Commission must first define the "like product" and the "industry." Section 771(4)(A) of the Tariff Act of 1930 (the Act) defines the relevant industry as the "domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product."[8] In turn, the Act defines "like product" 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."[9]

The imported articles subject to these investigations are pure and alloy primary magnesium. Primary magnesium is a metal or alloy containing by weight primarily the element magnesium and produced by decomposing raw materials into magnesium metal.[10] In its notice of initiation, the Department of Commerce (Commerce) defined two classes or kinds of merchandise subject to investigation--pure magnesium and alloy magnesium, as follows:

> *A. Pure Magnesium*
>
> . . . Pure primary magnesium encompasses all products that contain at least 99.95% primary magnesium by weight (generally referred to as "ultra-pure" magnesium), as well as products containing less than 99.95% but not less than 99.8% primary magnesium, by weight (generally referred to as "pure" magnesium). . . .

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[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10). The Commission's like product determinations are factual, and the Commission applies the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis. See, e.g., Torrington Co. v. United States, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991).

In analyzing like product issues, the Commission considers a number of factors, including: (1) physical characteristics and uses; (2) interchangeability of the products; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) the use of common manufacturing facilities and production employees; and (6) where appropriate, price. Calabrian Corp. v. U.S. Int'l Trade Comm'n, 794 F. Supp. at 382 n.4. No single factor is dispositive, and the Commission may consider other factors relevant to a particular investigation. The Commission looks for clear dividing lines among possible like products, and disregards minor variations. See, e.g., S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979); Torrington Co. v. United States, 747 F. Supp. at 748-49.

[10] Commerce Dept. Notice of Institution, April 20, 1994, 59 Fed. Reg. 21748 (April 26, 1994).

B. Alloy Magnesium

> . . . These investigations cover alloy primary magnesium products which contain 50% or greater, but less than 99.8%, primary magnesium, by weight. . . . In addition to primary magnesium, "alloy" magnesium generally contains one or more of the following items in amounts less than the primary magnesium itself: (1) other elements deliberately added to the primary magnesium; (2) magnesium scrap or secondary magnesium; (3) oxidized magnesium; and (4) other elements as impurities. . . .[11]

Primary magnesium anodes, granular primary magnesium (including turnings and powder) and secondary magnesium are excluded from the scope of the investigations for both classes or kinds. Both classes or kinds "are cast and sold in various physical forms and sizes, including ingots, slabs, billets and other shapes."[12]

While the Commission must accept Commerce's determination as to which imported merchandise is within the class or kind of merchandise allegedly sold at less than fair value, the Commission determines what domestic product is like the imported articles identified by Commerce.[13]

B. Like Product Issues

For each class or kind defined by Commerce, we have considered whether the like product consists of all primary magnesium, pure magnesium alone, or alloy magnesium alone.[14] Petitioners argue for one like product consisting of all primary

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[11] 59 Fed. Reg. 21748 (April 26, 1994).

[12] For both classes or kinds, products that have the requisite primary magnesium content, but that do not conform to ASTM specifications or other industry or customer-specific specifications, are included in the scope of these investigations.

[13] See, e.g., Algoma Steel Corp. v. United States, 688 F. Supp. 639 (Ct. Int'l Trade 1988) ("ITC does not look behind ITA's determination, but accepts ITA's determination as to which merchandise is in the class of merchandise sold at LTFV."), aff'd, 865 F.2d 240 (Fed. Cir. 1989); Torrington Co. v. United States, 747 F. Supp. at 748.

[14] In our previous investigation of magnesium from Canada, we originally found one like product consisting of all primary magnesium. Magnesium from Canada, Inv. Nos. 701-TA-309 and 731-TA-528 (Final), USITC Pub. 2550 (August 1992). A U.S.-Canada Binational Panel remanded the Commission's determinations for reconsideration of the like product definition. In the matter of: Magnesium from Canada, U.S.-Canada Binational Panel Nos. USA 92-1904-05 and USA 92-1904-06 ("Panel Remand Decision"). In our remand determination, bound by the Panel's decision, we found that pure and alloy magnesium were separate like products, but declined to further subdivide the like products. Magnesium from Canada, Inv. No. 701-309 and 731-TA-528 (Final) (Remand), USITC Pub. 2696 at 3-6 (Nov. 1993).

The Commission is not bound by its original or remand like product determinations or by the Panel Remand Decision in the Canada investigation for two reasons. First, Panel decisions are

(continued...)

magnesium, and assert that the record here supports the view that there is no clear dividing line between pure and alloy magnesium.[15] The Russian respondents argue that there is a clear dividing line for two like products consisting of pure magnesium and alloy magnesium.[16] Based upon our review of the record in these investigations, we determine that the same like product, primary magnesium, corresponds to each class or kind of magnesium.

There are two principal types of primary magnesium sold in the United States: pure magnesium and alloy magnesium. Pure magnesium contains at least 99.8 percent magnesium by weight, and alloy magnesium contains less than 99.8 percent, but generally at least 90 percent magnesium, by weight.[17] As produced in the United States, alloy magnesium is produced by adding alloying elements, typically aluminum and zinc, at the end of the production process.[18]

Both U.S.-produced pure and alloy magnesium usually contain at least 90 percent magnesium.[19] Although alloy magnesium may contain other metals that enhance the desirable properties of pure magnesium, the primary magnesium imparts to both pure and alloy products its essential characteristics as a lightweight, low density metal with a high strength-to-weight ratio.[20] For example, pure magnesium is used in aluminum alloys to increase hardness and corrosion resistance,[21] while magnesium alloys similarly impart these and other properties.[22] Further, all U.S.-produced primary magnesium is packaged, handled and shipped following the same regulations and requirements.[23]

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[14] (...continued)
not binding upon the Commission or the federal courts outside the particular investigation before the Panel. 19 U.S.C. § 1516a(b)(3). Moreover, the Commission's determination in every investigation is "based upon an individual evaluation of the factors with respect to the unique economic situation of each product and industry under investigation." Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1087-088 (Ct. Int'l Trade 1988). Furthermore, "'each finding as to like product must be based on the particular record at issue *including the arguments raised by the parties.*'" Citrosuco, 704 F. Supp. at 1088, quoting Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1169 and n.5 (Ct. Int'l Trade 1988). (Emphasis added by Citrosuco).

[15] Petitioners' Postconference Brief (submitted by Baker & Botts) at 4-13.

[16] Russian Respondents' Postconference Brief (submitted by Wilmer, Cutler & Pickering) at 7-14. The Ukrainian and Chinese respondents take no position on the like product question. Ukrainian Respondents' Postconference Brief (submitted by Ackerson & Bishop) at 4, n.9; Chinese Respondents' Postconference Brief (submitted by Midland Export Ltd.) at 5, Section 4A.

[17] Confidential Staff Report (hereinafter referred to as "CR") at II-6; Public Staff Report (hereinafter referred to as "PR") at II-5.

[18] CR at II-6, II-12; PR at II-5, II-10.

[19] CR at II-6; PR at II-5.

[20] Id.

[21] CR at II-5-6, n.10; PR at II-5-6.

[22] CR at II-5-6; PR at II-5-6.

[23] Id.

The core production processes for both pure and alloy magnesium are the same. For all primary magnesium, production begins with a "feedstock" of anhydrous (dry) or hydrous (wet) magnesium chloride.[24] Next, the magnesium is extracted from magnesium chloride by separating the chemically-bound magnesium and chlorine. Separation can occur by either an electrolytic or silicothermic process.[25] Until the electrolytic or silicothermic reduction of the magnesium is completed, the manufacturing processes for both alloy and pure magnesium are the same.[26] Production of alloy magnesium entails the additional step of placing the liquid magnesium into special furnaces and adding alloying elements such as aluminum or zinc.[27] A comparison of unit values for pure and alloy magnesium shows that the additional value added by alloying is small relative to the overall per unit production costs.[28]

The companies that produce both pure and alloy magnesium use the same machinery, equipment and employees for both.[29] Although separate casting lines have been used for pure and alloy magnesium, both types can be produced on the same line if necessary.[30] In those facilities that produce both types of magnesium, the same production workers usually work on both lines.[31]

Primary magnesium has a variety of uses. Although pure and alloy magnesium typically have had different principal uses,[32] there is evidence in the record suggesting that pure and alloy magnesium in some instances have common end uses. For example, the information collected in these investigations shows that domestic producers produce and sell alloy magnesium for use by desulfurizers, who typically purchase pure magnesium.[33]

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[24] Magnesium chloride can be derived in several ways. See CR at II-8-10: PR at II-7-10.

[25] Id. The vast majority of U.S. production is by the electrolytic process.

[26] CR at II-10; PR at II-10.

[27] CR at II-12; PR at II-10.

[28] See CR at II-50, Table 16; PR at II-38, Table 16 (per-unit manufacturing costs for combined U.S.-produced primary magnesium); CR at C-6; PR at C-4 (unit values for U.S.-produced pure magnesium); CR at C-4; PR at C-3 (unit values for U.S.-produced alloy magnesium).

[29] CR at II-10-11 & n. 20; PR at II-8-10 & n.20. Two companies accounting for the vast majority of U.S. primary magnesium production produce both pure and alloy magnesium.

[30] Id.

[31] Id.

[32] See CR at II-6-7; PR at II-5-6. Pure magnesium is an alloying agent and a chemical reagent used primarily in aluminum alloying and iron and steel desulfurization, nonferrous metals production, cathodic protection, and other distributive and sacrificial consumptions. Magnesium alloys, on the other hand, usually are used primarily by die, sand, and mold casters that take advantage of the structural properties to produce structural products such as automobile components, bicycles, power tools, computer chassis, and other products.

[33] CR at II-21, Table 4; PR at II-18, Table 4. See Affidavit of Lee R. Brown, Magcorp Vice President ("Brown Affidavit") (Petitioners' Postconference Brief at Exhibit 1). ***. Id. The record in the Canada investigation also contained data indicating that some alloy was sold to desulfurizers

(continued...)

There is some overlap between sales of pure and alloy magnesium.[34] In addition to the common sales to desulfurizers, the record also indicates that a small amount of domestically-produced alloy also has been purchased by aluminum producers, who usually purchase pure magnesium for use in making their aluminum alloys.[35] There is also evidence that diecasters, who usually purchase alloy magnesium for casting, also may purchase pure magnesium to which they add their own alloying elements before casting.[36]

The evidence of overlapping sales suggests that factors other than the percentage of magnesium content may be decisive in purchasing decisions for some purchasers, particularly steel desulfurizers. These sales suggest that not all customers necessarily perceive an absolute difference between pure and alloy products.[37] We also note that the Russian respondents themselves concede that in some cases, the difference in price (rather than magnesium content) is the factor that actually "makes the alternative unacceptable to the user."[38]

The evidence of these cross-kind sales, and thus the purchaser and producer perceptions reflected by these sales, indicates that there is sufficient interchangeability to prevent us from finding a clear dividing line in these preliminary investigations. There is also evidence that primary magnesium is really a multitude of distinct products with varying magnesium content.[39] The defining distinction between pure and alloy magnesium is based upon where the particular product falls on that continuum: if it contains at least 99.8 percent magnesium by weight, it is defined as pure, and if it contains any amount less than that, it is considered alloy. However, the evidence in these preliminary investigations suggests that this small change in the magnesium content is not very different from the changes that define different products within the pure and alloy classes.

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[33] (...continued)
(see USITC Pub. 2550 at 10), but the explanation provided of the nature of these sales has been amplified in these investigations. The evidence gathered and arguments made in these preliminary investigations suggests that there is a greater degree of overlap between the uses for pure and alloy magnesium than was apparent from the record in the Canada case.

[34] See CR at II-21, Table 4; PR at II-18, Table 4.

[35] CR at II-21, Table 4; PR at II-18, Table 4.

[36] See Brown Affidavit; CR at II-21, Table 4; PR at II-18, Table 4.

[37] An affidavit submitted by Magcorp's Vice President also provides evidence of the perception of at least one of the three U.S. producers that there is no clearcut line between pure and alloy magnesium. Brown Affidavit.

[38] Russian Respondents' Postconference Brief at 12. That imports of alloy magnesium are sold to aluminum producers, who usually purchase pure magnesium, magnifies the problem of finding that metal content creates a clear line for distinctions based on physical characteristics and end uses. See CR at II-21, Table 4; PR at II-18, Table 4; CR at II-69-70, PR at II-54-55.

[39] See ASTM Specifications for primary magnesium (Petition at Exhibit 3), which list five formulations for pure magnesium and 27 formulations for alloy magnesium.

Domestically-produced pure and alloy magnesium are both almost exclusively distributed directly to unrelated end users.[40] However, the significance of the similarity in channels of distribution is mitigated by the evidence that the different products generally are sold to different classes of end users.[41]

The pricing data obtained in these investigations indicate that U.S.-produced alloy magnesium is priced somewhat higher than U.S.-produced pure magnesium.[42] However, these price differences are not in all instances significant relative to the price of the products.[43] Further, while price differences reflect differences in costs and market demand, the price to end users of both pure and alloy magnesium reflects the cost of the same primary component (magnesium) contained in both types of products.[44]

In sum, based upon the record in these preliminary investigations, we find that the commonality of production facilities, machinery, processes and employees, the sharing of the same predominant component (magnesium) and its essential physical characteristics, and the existence of crossover sales between pure and alloy magnesium to the same end users all weigh in favor of one like product.[45] Accordingly, we find that the same like product, consisting of all primary magnesium, corresponds to each class or kind of merchandise subject to investigation.[46] Consequently, we define the domestic industry to consist of all primary magnesium producers.[47] [48]

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[40] CR at II-27-28, Table 7; PR at II-24, Table 7.

[41] See CR at II-7, II-69 and II-21, Table 4; PR at II-6, II-54, and II--18, Table 4. In the Canada case, the Panel was troubled with the Commission's failure to explain the significance of the fact that both alloy and pure magnesium were sold directly to end users. Panel Remand Decision at 17.

[42] See CR at II-73-79; PR at II-56-60.

[43] Compare CR at II-79; PR at II-60 (U.S. producers' contract sale prices for alloy magnesium sold to diecasters) with CR at II-74, Table 25; PR at II-57, Table 25 (prices for contract sales of commodity-grade pure magnesium to aluminum producers).

[44] See CR at II-12; PR at II-10.

[45] Commissioner Nuzum notes that Commissioner Rohr has defined the like product as pure magnesium, which corresponds to both classes or kinds of merchandise. She finds considerable merit in Commissioner Rohr's approach. The facts in these investigations suggest that subject imports of both pure and alloy magnesium tend to compete more with domestically-produced pure magnesium than with domestically-produced alloy magnesium. Although she has based her preliminary determinations on a like product of primary magnesium, Commissioner Nuzum intends to reconsider the like product issue in any final investigations.

[46] We intend to reexamine the like product question in any final investigations, particularly with respect to the issues of interchangeability and overlap in end uses.

[47] We note that a large percentage of the primary magnesium produced by Northwest Alloys is used internally. It has been the Commission's practice to include all domestic production of the like product, whether captively consumed or sold in the domestic open market. E.g., Polyethylene Terephthalate Film, Sheet, and Strip from Japan and the Republic of Korea, (PET Film), Invs. Nos. 731-TA-458 & 459 (Final), USITC Pub. 2383 (May 1991) at 19. The statutory definition of domestic industry does not provide for excluding captive production, 19 U.S.C. § 1677(4)(A), but the

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III. CONDITION OF THE DOMESTIC INDUSTRY

In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of allegedly LTFV imports, the Commission considers all relevant economic factors which have a bearing on the state of the industry in the United States. These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. No single factor is determinative, and we consider all relevant factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[49]

There are several conditions of competition distinctive to the domestic primary magnesium industry. First, the demand for primary magnesium is dictated largely by demand for the finished products in which magnesium is used, such as aluminum alloys and automobile parts.[50] In turn, consumption of the finished products often tracks general economic conditions, including recession and recovery. Thus, the domestic industry producing primary magnesium is affected by the business cycles of the industries that consume primary magnesium. As the demand in the consuming industries rose from 1991-1993, so did the demand for primary magnesium.[51]

Second, electrolytic cells used in the production of primary magnesium will deteriorate if they are not kept running constantly.[52] If they deteriorate, they must be rebuilt. The costs of rebuilding these cells are so high that producers must try to keep

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[47] (...continued)
Commission generally focuses its attention on the open-market segment of the industry in evaluating whether the imports are materially injuring the domestic industry. See e.g., Sebacic Acid from PRC, Inv. No. 731-TA-653 (Preliminary), USITC Pub. 2676 (Sept. 1993) at 11, n. 30; Certain Flat-Rolled Carbon Steel Products from Argentina, Australia, Austria, Belgium, Brazil, Canada, Finland, France, Germany, Italy, Japan, The Republic of Korea, Mexico, The Netherlands, New Zealand, Poland, Romania, Spain, Sweden, and the United Kingdom, Inv. Nos 701-TA-319-332, 334, 336-342, 344, 347-353, Inv. Nos. 731-TA-573-579, 581-592, 594-597, 599-609, 612-619 (Final) (Steel), USITC Pub. 2664 (August 1993) at 22-23.

[48] There is evidence that one U.S. producer imported a small amount of primary magnesium from Russia. CR at II-27, n.39; PR at 23, n.39. This firm is therefore a "related party," and the statute directs us to exclude it from the industry if "appropriate circumstances" exist. See 19 U.S.C. § 1677(4)(B). We conclude that such appropriate circumstances do not exist. That firm's importation of subject merchandise was so small relative to its production of the like product that it is clear its interests are those of a producer, not an importer of the product. Moreover, as its financial data confirm, importation of such a nominal amount of subject merchandise did not cause that firm's financial condition to be "shielded" from the effects of the subject imports.

[49] 19 U.S.C. § 1677(7)(C)(iii). None of the parties suggested the existence of a business cycle unique to this industry.

[50] See CR at II-70; PR at II-54-55.

[51] CR at II-19, Table 3; PR at II-16, Table 3.

[52] Petition at 60; Transcript of Conference (April 21, 1994) ("Tr.") at 54-56.

the cells in constant operation. Thus, to be cost-effective, producers must maintain continuous and steady production of primary magnesium.

Third, we found in August 1992 that the domestic primary magnesium industry was experiencing material injury by reason of unfairly traded imports.[53] Suspension of liquidation of the subject Canadian imports took effect in December 1991 and January 1992,[54] immediately preceding the influx of imports subject to the current investigations in the latter half of 1992. After the countervailing duty and antidumping orders were issued in August 1992, the magnitude of imports from Canada dropped.[55] Thus, the unfairly traded imports from Canada were barely removed from the market before the imports now under investigation started entering the United States.

Finally, imports of pure and alloy magnesium from Russia and Ukraine became eligible for MFN treatment in June 1992. Thus, the dutiable rates for these pure and alloy magnesium imports, respectively, were reduced from 100 percent and 60.5 percent ad valorem to 8.0 percent and 6.5 percent ad valorem.[56]

Apparent U.S. consumption of primary magnesium increased each year of the investigation period, from 111,204 metric tons in 1991 to 124,904 metric tons in 1993.[57] This increase represented a growth of 8.2 percent from 1991 to 1992 and then another 3.8 percent from 1992 to 1993.[58] U.S. producers' domestic shipments increased from 85,353 metric tons in 1991 to 112,829 metric tons in 1992, but then declined to 92,708 metric tons in 1993.[59] Despite the large and steady increase in U.S. consumption of primary magnesium, U.S. producers' market share in 1993 was slightly lower than it was in 1991.[60]

Domestic production was also lower in 1993 than it was in 1991.[61] While production rose slightly from 133,341 metric tons in 1991 to 137,683 metric tons in 1992, it dropped to 129,956 metric tons in 1993.[62] Capacity remained steady during this period, but capacity utilization fell from 81 percent in 1991 to 79 percent in 1993.[63]

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[53] Magnesium from Canada, USITC Pub. 2550. See also USITC Pub. 2696 (finding material injury to separate pure and alloy magnesium industries by reason of Canadian imports).

[54] 56 Fed. Reg. 63927 (Dec. 6, 1991); 57 Fed. Reg. 6094 (Feb. 20, 1992).

[55] Imports of magnesium not subject to the current investigations, which include imports from Canada, dropped from 25,851 metric tons in 1991 to 8,442 metric tons in 1993. CR at II-61, Table 23, PR at II-47, Table 23.

[56] CR at II-15; PR at II-12-14.

[57] CR at II-19, Table 3; PR at II-16, Table 3.

[58] CR at D-3, Table D-1: PR at D-3, Table D-1.

[59] CR at II-19, Table 3; PR at II-16, Table 3.

[60] CR at II-65, Table 24; PR at II-50, Table 24.

[61] CR at II-25, Table 6; PR at II-22, Table 6.

[62] Id.

[63] CR at II-33, Table 9; PR at II-29, Table 9. In the autumn of 1993, Dow announced the idling of *** of its production capacity. CR at II-34, n.52; PR at II-29, n.52.

Inventories first dropped from 22,233 metric tons in 1991 to 8,752 metric tons in 1992 and then increased back to 17,697 metric tons in 1993.[64] The ratio of inventories relative to U.S. shipments likewise dropped from 26 percent in 1991 to 8 percent in 1992, before growing again to 19 percent in 1993.[65]

Employment of production and related workers in the primary magnesium industry fell throughout the period of investigation, from 1,652 workers in 1991 to 1,596 workers in 1993.[66] Hours worked also declined, from 3.47 million hours to 3.39 million hours.[67] However, wages and compensation increased.[68] Unit labor costs increased, while productivity remained steady.[69]

The domestic industry reported poor financial performance. Although net sales increased from $337 million in 1991 to $395 million in 1992, they decreased to $365 million in 1993.[70] The industry reported continuing operating losses throughout the period of investigation.[71] The industry's overall capital expenditures increased from 1991 to 1993, while research and development expenses fell from the beginning to the end of the period of investigation.[72] [73]

IV. CUMULATION

In determining whether there is a reasonable indication of material injury by reason of allegedly LTFV imports, the Commission is required to "cumulatively assess the volume and effect of imports from two or more countries of like products subject to investigation if such imports compete with each other and with like products of the domestic industry in the United States market."[74] Cumulation is not required, however, when imports from a subject country are negligible and have no discernible adverse impact on the domestic industry.[75]

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[64] CR at II-39, Table 12; PR at II-33, Table 12.
[65] Id.
[66] CR at II-40, Table 13; PR at II-34, Table 13.
[67] Id.
[68] Id.
[69] Id.
[70] CR at II-44, Table 14; PR at II-37, Table 14.
[71] Id.
[72] CR at II-52, Tables 18 and 19; PR at ____. Capital expenditures increased from *** in 1991 to *** in 1993. Research and development expenses decreased from *** to *** over the same period.
[73] Based on the foregoing performance indicators, Chairman Newquist finds that there is a reasonable indication that the domestic industry producing primary magnesium is experiencing material injury. Chairman Newquist does not join the remainder of this determination. See Additional and Dissenting Views of Chairman Newquist, infra.
[74] 19 U.S.C. § 1677(7)(C)(iv)(I); Chaparral Steel Co. v. United States, 901 F.2d 1097, 1101 (Fed. Cir. 1990).
[75] 19 U.S.C. § 1677(7)(C)(v).

With regard to whether the subject imports compete with each other and the domestic like product, the Commission generally has considered four factors, including:

> *(1) the degree of fungibility between the imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;*
>
> *(2) the presence of sales or offers to sell in the same geographic markets of imports from different countries and the domestic like product;*
>
> *(3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product; and*
>
> *(4) whether the imports are simultaneously present in the market.*[76]

No single factor is determinative and the list of factors is not exclusive. Only a "reasonable overlap" of competition is required; the Commission does not have to find that all imports compete with all other imports and all domestic like products.[77]

The statute provides that the Commission is not required to cumulate in any case in which it determines that imports of the merchandise subject to investigation "are negligible and have no discernable adverse impact on the domestic industry."[78] In determining whether imports are negligible, the Commission shall consider all relevant economic factors, including whether:

> *(I) the volume and market share of the imports are negligible,*
>
> *(II) sales transactions involving the imports are isolated and sporadic, and*
>
> *(III) the domestic market for the like product is price sensitive by reason of the nature of the product, so that a small quantity of imports can result in price suppression or depression.*[79]

The negligible imports exception is to be applied narrowly and is not to be used to subvert the purpose and general applicability of the mandatory cumulation provision of the statute.[80]

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[76] See generally, e.g., Fundicao Tupy S.A. v. United States, 678 F. Supp. 898, 902 (Ct. Int'l Trade), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

[77] Wieland Werke, AG v. United States, 718 F. Supp. 50, 52 (Ct. Int'l Trade 1989); Granges Metallverken AB v. United States, 716 F. Supp. 17, 21, 22 (Ct. Int'l Trade 1989).

[78] 19 U.S.C. § 1677(7)(C)(v).

[79] 19 U.S.C. § 1677(7)(C)(v).

[80] See H.R. Rep. No. 40, 100th Cong., 1st Sess., pt. 1, at 131 (1987); H.R. Rep. No. 576, 100th Cong., 2d Sess. 621 (1988).

For each class or kind of subject imports, we first examine whether there is a reasonable overlap in competition between the domestic and imported products, and among the subject imported products. We then address the applicability of the negligible imports exception in these investigations.

A. Cumulation of Imports of Pure Magnesium

1. Competition Among the Imports and Between the Imports and the Domestic Like Product

The parties do not dispute that the imports of pure magnesium from Ukraine and Russia compete with one another. Most of the initial imports of pure magnesium from both Ukraine and Russia came from former U.S.S.R. stockpiles and were sold mainly to the aluminum and desulfurization markets.[81] Although there may be some question as to whether the Chinese magnesium competed with the U.S.S.R. stockpiled magnesium, an importer of the Chinese magnesium stated at the hearing that the better quality magnesium now being imported from Russia and the Ukraine competes with the Chinese product.[82]

The evidence also indicates that the imports of pure magnesium compete with U.S.-produced primary magnesium, particularly domestic pure magnesium. Throughout the period of investigation, U.S. producers shipped large quantities of pure magnesium to aluminum producers and steel desulfurizers--the same end users that purchased much of the stockpiled magnesium from Russia and Ukraine.[83] In addition, newly-produced Ukrainian and Russian magnesium concededly competes, at least to some degree, with U.S. magnesium for sales to the same users, such as desulfurizers, aluminum producers, and granule producers.[84] The Chinese respondents admit that their pure magnesium competes with the U.S.-produced pure magnesium for sales to aluminum producers.[85]

We therefore find, for the purposes of these preliminary investigations, that the subject imports compete among themselves and with the domestic like product.[86]

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[81] CR at II-57, n.64; PR at II-44, n.64. Further, at the Commission conference, an importer referred to the imports from both countries interchangeably. See e.g., Tr. at 65-75, 99.

[82] Tr. at 117.

[83] See CR II-21, Table 4; PR at II-18, Table 4; Tr. at 94-95.

[84] See Tr. at 91, 101 and ***.

[85] See Chinese Respondents' Postconference Brief at 5.

[86] We will revisit this question in any final investigations.

2. Negligibility

The Chinese respondents argue that their imports should be excluded from cumulation under the negligible imports exception. We find that the imports from China were neither isolated nor sporadic, and have entered the United States continually since the latter half of 1992. The Chinese imports have increased both in terms of volume and market share since that time. The volume of Chinese imports of pure magnesium increased from no imports in 1991 to 370 metric tons in 1992 and to 1,148 metric tons in 1993.[87] These imports accounted for no market share in 1991 and 0.9 percent of the primary magnesium market in 1993.[88]

In addition, evidence collected in these preliminary investigations also indicates that the domestic industry is vulnerable due to the previous presence of unfairly traded imports from Canada in the U.S. market. Given the continuing increases of the imports from China, we decline to apply the negligibility exception to the Chinese imports in these preliminary investigations.[89] [90]

Having found that the pure magnesium imports from all subject countries compete with one another and with U.S.-produced primary magnesium, and that it is not appropriate to apply the negligibility exception to any of the subject imports, we have cumulated the volume and price effects of all subject imports of pure magnesium.

B. Cumulation of Imports of Alloy Magnesium

1. Competition Among the Imports and Between the Imports and the Domestic Like Product

There is limited evidence in the record of these preliminary investigations concerning the nature of the alloy magnesium imports, including the degree of competition among these imports.[91] What information is available suggests that there is little difference among the imports of either pure or alloy magnesium from Russia and Ukraine. As discussed above, the imports from these two countries generally were perceived as interchangeable by the importers. Further, as noted, an importer testifying

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[87] CR at C-4, Table C-1; PR at C-3, Table C-1.

[88] Staff notes, Supplemental Table D-4: Summary data concerning the U.S. market, by pure and alloy imports, 1991-93 (hereinafter referred to as "Supp. Table D-4") dated May 11, 1994.

[89] No party has argued for application of the negligibility exception to either of the other subject countries, and given the levels of pure magnesium imports from those countries, we find no basis for applying the exception to those imports.

[90] Commissioner Crawford does not join in any of the characterizations herein that the domestic industry is "vulnerable." She does not make a separate conclusion concerning the abstract health (e.g., vulnerability) of the industry.

[91] We intend to seek further information about these imports in any final investigations.

on behalf of the Chinese respondents indicated that the recent imports from Russia and the Ukraine compete with the Chinese product.

The limited available information suggests that the imported alloy magnesium is equivalent to "off-spec" U.S.-produced pure magnesium, rather than to the alloyed magnesium that U.S. producers sell to diecasters. The foreign producers indicated that these alloy imports are sold to end users such as aluminum producers, desulfurizers, and granule producers, that typically purchase domestically-produced pure magnesium. For example, although the Chinese respondents argue that the imported alloy magnesium from China does not compete with the U.S.-produced alloy magnesium, which is sold mainly to diecasters, the Chinese alloy magnesium, like the Chinese pure magnesium, competes with the domestic magnesium producers for sales to users such as aluminum producers.[92]

We therefore find, for the purposes of these preliminary investigations, that the subject imports compete among themselves and with the domestic like product.[93]

2. Negligibility

As with imports of pure magnesium, we also find it inappropriate to apply the negligibility exception to the imports of alloy magnesium from China. The volume of those imports rose from no imports in 1991 to 96 metric tons in 1992 and then to 923 metric tons in 1993.[94] The market share held by these imports increased rapidly from no share in 1991 to 0.7 percent of the market for all primary magnesium.[95] Given the continuing increases of these imports in a price sensitive market, we decline to apply the negligibility exception to the Chinese imports in these preliminary investigations.[96] [97]

We determine, however, that the exception should be applied to the imports of alloy magnesium from Ukraine. The data show that only 17 metric tons of alloy were

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[92] See CR at II-69-70; PR at II-54-55.

[93] We will revisit this question in any final investigations.

[94] CR at C-5, Table C-2; PR at C-3, Table C-2.

[95] Supp. Table D-4.

[96] Although the Russian respondents did not argue that imports of their magnesium are negligible, we examined whether, in fact, any negligibility exception should apply. Imports of alloy magnesium from Russia increased from no imports in 1992 to 804 metric tons in 1993, and from no market share to 0.6 percent of the market during the same period. Supp. Table D-4. For the same reasons given for alloy magnesium from China, we decline to apply the negligibility exception to alloy imports from Russia.

[97] Commissioner Crawford does not make a finding on the negligibility of imports from China or Russia. For purposes of these preliminary investigations, she gives petitioners the benefit of the doubt and cumulates the imports. See Dissenting Views of Commissioner Crawford, infra.

imported into the United States during the period of investigation.[98] The market share of these imports is less than 0.02 percent.[99] We find that any sales of these handful of imports would represent an isolated and sporadic transaction. The volume and market share of these imports is so slight that there is no possibility they could have an adverse impact even upon a vulnerable domestic industry.

We therefore have cumulated the volume and effects of subject alloy magnesium imports from China and Russia, but have independently evaluated the effects of alloy magnesium imports from Ukraine.[100]

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[98] CR at C-13, Table C-10; PR at C-8, Table C-10.

[99] Supp. Table D-4.

[100] For the purposes of evaluating the volume and price effects of the subject imports, Vice Chairman Watson has combined the cumulated pure magnesium imports and the cumulated alloy imports. The unique facts of this case make cumulation across class or kind appropriate; subject imports of alloy magnesium compete directly with subject imports of pure magnesium (See CR at II-69-70; PR at II-54-55). Vice Chairman Watson notes that the Commission has in the past cumulated across classes or kinds, and in at least one case was upheld in doing so. E.g., 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, USITC Pub. 2185, Inv. Nos. 303-TA-19 and 20 and 731-TA-391-399, aff'd, Torrington Co. v. United States, 747 F. Supp. 744 (1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991) (six like products; five classes or kinds, one of which corresponded to parts of several classes or kinds); Cyanuric Acid and Its Chlorinated Derivatives from Japan, Inv. No. 731-TA-136 (Final), USITC Pub. 1513 at 5, A-71 (Apr. 1984) (one like product; three classes or kinds); Certain Flat-Rolled Carbon Steel Products from Brazil, Inv. No. 731-TA-123 (Final), USITC Pub. 1499 at 8, A-64 (Mar. 1984) (one like product, two classes or kinds).

Although the decision of one CIT judge does not establish binding precedent, see Algoma Steel Corp. v. United States, 865 F.2d 240, 243 (Fed. Cir.), cert. denied, 492 U.S. 919 (1989), Vice Chairman Watson notes that his analysis in these investigations appears consistent with the CIT's decision, as clarified on review after remand, in Hosiden Corp. v. United States, 810 F. Supp. 322 (Ct. Int'l Trade 1992), appeal dismissed, Nos. 93-1224,-1269 (Fed. Cir. July 13, 1993), aff'd after remand, Slip Op. 94-60 (Ct. Int'l Trade April 14, 1994). See Slip Op. 94-60 at 10-11 ("Hosiden I does not preclude the Commission from cumulating the effects of the different classes or kinds of merchandise identified by Commerce.")

Having found that imports of alloy magnesium from Ukraine are negligible due to their extremely small size, Vice Chairman Watson has conducted one causation analysis for imports of pure magnesium from China, Russia, and Ukraine and imports of alloy magnesium from China and Russia, and a separate causation analysis for imports of alloy magnesium from Ukraine.

V. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS OF PURE MAGNESIUM FROM CHINA, RUSSIA, AND UKRAINE AND ALLOY MAGNESIUM FROM CHINA AND RUSSIA[101]

A. Legal Standard

The Commission is required to make a preliminary determination of whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of allegedly subsidized or LTFV imports.[102] In making our determination, the Act provides that the Commission:

> *(i) shall 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; and*
>
> *(ii) may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*[103]

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[101] For the purposes of these preliminary investigations, Vice Chairman Watson finds it unnecessary to submit separate views explaining his affirmative injury determinations. As noted above, he cumulated imports of pure magnesium from Russia, China, and Ukraine with imports of alloy magnesium from Russia and China. He finds it sufficient to join the following discussion of the volume and price effects and impact of subject imports of pure magnesium on the domestic industry because pure magnesium imports account for the overwhelming majority of imports subject to these investigations. Further, as also noted above, the alloy magnesium imports from Russia and China compete directly with domestic pure magnesium. He finds the case for an affirmative injury determination to be clear and convincing when imports of pure magnesium are considered alone. Adding imports of alloy magnesium from Russia and China only makes the case stronger.

[102] 19 U.S.C. §§ 1671b(a), 1673b(a).

[103] 19 U.S.C. § 1677(7)(B).

The Commission may consider alternative causes of injury, but it is not to weigh causes.[104] The statutory language regarding causation of material injury by reason of LTFV imports is interpreted differently by different Commissioners.[105]

B. Reasonable Indication of Material Injury by Reason of Allegedly LTFV Imports of Pure Magnesium from China, Russia, and Ukraine[106]

1. Volume of Allegedly LTFV Imports

The volume of allegedly LTFV imports, measured by both quantity and value, is significant, and increased substantially during the period of investigation.[107] From 1991 to 1992, the quantity of subject imports of pure magnesium increased from no imports to 2,992 metric tons.[108] In 1993, imports increased dramatically, to 22,010 metric tons.[109] The value of the subject imports likewise increased rapidly, from $8.8 million in 1992 to $52.4 million in 1993.[110] [111]

Market penetration of subject imports of pure magnesium, by both quantity and value, also increased dramatically during the period of investigation.[112] These imports were not present in the market at all in 1991, but captured 2.5 percent of the

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[104] See, e.g., Citrosuco Paulista, S.A. v. United States, 704 F. Supp. at 1101. Alternative causes may include the following:

> the volume and prices of imports sold at fair value, contraction in demand or changes in patterns of consumption, trade, restrictive practices of and competition between the foreign and domestic producers, developments in technology, and the export performance and productivity of the domestic industry.

S. Rep. No. 249, at 74. Similar language is contained in the House Report. H.R. Rep. No. 317, 96th Cong., 1st Sess. 47 (1979).

[105] See Defrost Timers from Japan, Inv. No. 731-TA-643 (Final), USITC Pub. 2470, at I-10, n.47-49 (Feb. 1994).

[106] As noted, supra, Vice-Chairman Watson looked at the combined effects of the cumulated pure imports and cumulated alloy imports. The data and other information gathered in these preliminary investigations are such that the analysis of the combined effects and impact of pure and alloy magnesium nearly identically track those of the pure magnesium imports alone.

[107] CR at C-12, Table C-9; PR at C-7, Table C-9.

[108] Id.

[109] Id. and CR at D-6, Table D-2; PR at D-6, Table D-2.

[110] Id.

[111] Vice Chairman Watson notes that the volume of the total cumulated pure and alloy magnesium imports rose from no imports in 1991 to 3,089 metric tons in 1992 and then to 23,737 metric tons in 1993. CR at II-61, Table 23; PR at ____; Supp. Table D-4. By value, these imports rose from $9.1 million in 1992 to $56.9 million in 1993. Id.

[112] Supp. Table D-4.

domestic primary magnesium market in 1992 and 17.6 percent of the market in 1993.[113] At the same time that these subject imports increased their market penetration, the market share for nonsubject imports of pure magnesium fell from 19.6 percent in 1991 to 1.0 percent in 1992 and remained low, at 1.8 percent, in 1993--reflecting the imposition of duties on Canadian magnesium.[114]

Respondents' argue that the large influx of Russian and Ukrainian magnesium into the U.S. market in 1992 and 1993 resulted from an abnormal one-time occurrence, i.e., the need to sell oxidized stockpiles of fifteen-year old U.S.S.R. magnesium. As we have previously noted, however, whether there is a reasonable indication of present material injury to a domestic industry by reason of allegedly LTFV imports does not depend on whether present material injury was caused by one or many shiploads of the imported product.[115] Respondents also argue that the U.S. producers experienced supply shortages which were filled by the subject imports.[116] As evidence of a supply shortage, respondents cite to one domestic producer's importation of a small quantity of Russian magnesium. The nominal volume of those imports, however, does not approach the massive amounts of pure magnesium imported from the subject countries in 1992 and 1993.

2. Effect of Allegedly LTFV Imports on Domestic Prices

Information in the record indicates that domestically-produced primary magnesium and the subject imports of pure magnesium are moderately substitutable. There is evidence of some quality differences between the imports from Russia and Ukraine and the domestic product due to undesirable size, potential for oxidation during shipping, and the need for additional melting due to ingots being covered with paraffin wax.[117] However, the evidence also indicates that the subject imports and the domestic product compete for sales to the same end users, e.g., aluminum producers and steel desulfurizers. Moreover, the poorer quality magnesium from the former U.S.S.R. stockpiles has been liquidated, and the newly-produced magnesium

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[113] Id. Vice Chairman Watson notes that cumulated subject pure and alloy magnesium imports increased market share from no share in 1991 to 19 percent of apparent domestic consumption in 1993. CR at II-65, Table 24, PR at II-50, Table 24.

[114] Supp. Table D-4. Vice Chairman Watson notes that the market share for nonsubject imports of all primary magnesium dropped from 23.2 percent in 1991 to 6.8 percent in 1993. CR at II-65, Table 24, PR at II-50, Table 24.

[115] Fresh Kiwifruit from New Zealand, Inv. No. 731-TA-516 (Preliminary), USITC Pub. 2394 at 18, n. 69. An increase in import volume caused by an aberrant incident that will not be repeated may, however, be relevant to a threat determination. Id.

[116] Ukrainian Respondents' Brief at 13-16; Russian Respondents' Brief at 24-25.

[117] CR at II-72; PR at II-55-56. There is no evidence in the record of these preliminary investigations of quality differences between the Chinese product and the domestic product.

imported from these countries is of better quality.[118] In any event, whatever the quality of the imports, the massive increases in volume and market share demonstrate that any quality differences have not limited significantly the ability of the foreign producers in the subject countries from selling a significant volume of their magnesium in the United States.[119]

Because the subject imports only began entering the United States towards the end of 1992, pricing data are available beginning with the first quarter of 1993. In all reported quarterly transactions for that year, subject imports from all subject countries undersold U.S. producers in contract sales of commodity-grade pure magnesium to aluminum producers.[120] In the fourth quarter of 1993, U.S. producers lowered their prices for this product, but were still undersold by the subject imports.[121]

For contract sales of commodity-grade pure magnesium to magnesium granule producers, subject imports undersold the U.S. product in all quarters for which data were provided.[122] Following these imports of lower-priced pure magnesium in the second and third quarters of 1993, prices for both the imported and U.S.-produced product fell in the fourth quarter of 1993.[123] This evidence indicates that the lower-priced imports depressed U.S. prices to a significant degree.

3. Impact on the Domestic Industry

Despite an increase in apparent U.S. consumption of primary magnesium, the U.S. producers' market share declined while the volume and market share of the subject imports increased rapidly and dramatically. Due to the prohibitive costs of recharging the electrolytic cells used to produce magnesium if production facilities are

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[118] Tr. at 86-87.

[119] Commissioner Crawford does not join the following discussion of price effects. She finds that it is unlikely that subject imports had any significant price effects. While the dumping margins in these preliminary investigations are little more than petitioners' estimates, they represent the best information available at this time. The alleged margins are so high that is likely that substantially fewer subject imports would have entered the domestic market if they had been fairly priced. Because subject imports and the domestic product are moderate substitutes, purchasers would have switched to the domestic product. Even so, the domestic industry would not have been able to increase its prices. Production capacity is available, and the domestic industry is competitive, consisting of three firms producing the like product. Therefore, attempts by one producer to increase prices would have been met and "beaten back" by the other producers. As a result, she finds that available capacity and competition among the domestic producers would have minimized or prevented any price increase for the like product if subject imports had been priced fairly.

[120] CR at II-77, Table 26; PR at II-58, Table 26.

[121] Id.

[122] CR at II-74, Table 25, PR. at II-57, Table 25.

[123] Id.

shut down, U.S. producers are willing to reduce prices to maintain production levels.[124] The U.S. producers were able to reduce their inventories significantly in 1992, following the imposition of duties on imports of pure and alloy magnesium from Canada found to be unfairly traded and causing material injury to the U.S. industry. The entry of significant and increasing volumes of the subject imports in the latter half of 1992 and 1993, however, resulted in growth of U.S. inventories and placed significant pressure on the domestic producers to lower their prices.

In addition, the U.S. plants producing primary magnesium are dedicated to primary magnesium production, with little flexibility to produce other products. The domestic industry's capacity utilization was 79 percent in 1993, and thus it had the ability to increase its output and sales. Any significant increases in the industry's output and sales, however, were prevented by the allegedly LTFV imports. As a result, subject imports generated a significant decrease in the domestic industry's revenues, as reflected by the financial data collected in these investigations.

Given the moderate substitutability between subject imports and the like product, the rapid and dramatic increase in allegedly unfairly traded imports, the consistent underselling by these imports throughout 1993, and the decline in domestic market share and poor financial condition of the U.S, we determine that there is a reasonable indication that the domestic industry producing primary magnesium is materially injured by reason of the subject imports of pure magnesium.[125] [126]

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[124] Tr. at 55-57.

[125] Because the domestic industry's capacity utilization rate was 78.9 percent in 1993, Commissioner Crawford finds that the domestic industry would have been able to increase its output and sales if subject imports had been fairly priced. Given the significant volume of subject imports and the domestic industry's available capacity, she finds that the domestic industry would have been able to increase its output and sales, and therefore its revenues, significantly if subject imports had been priced fairly. Thus, she finds that the domestic industry would have been materially better off and therefore determines that there is a reasonable indication that the domestic industry is materially injured by reason of allegedly LTFV imports of pure magnesium from China, Russia and Ukraine.

[126] Commissioner Nuzum finds that there is a reasonable indication that the domestic industry producing primary magnesium is materially injured by reason of the allegedly LTFV imports of alloy magnesium from China and Russia. See Additional Views of Commissioner Nuzum, infra.

VI. NO REASONABLE INDICATION OF MATERIAL INJURY OR THREAT OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS OF ALLOY MAGNESIUM FROM UKRAINE

A. No Reasonable Indication of Material Injury by Reason of Allegedly LTFV Imports of Alloy Magnesium from Ukraine

The volume of imports of alloy magnesium from Ukraine totaled 17 metric tons during the period of investigation.[127] This amount represented less than one-tenth of one percent of apparent U.S. consumption of primary magnesium.[128] This volume and market share are not significant. There is no pricing data on these imports, but given their negligible volume, they could not have significant adverse price effects on domestic primary magnesium, or an adverse impact on the domestic industry producing primary magnesium. We find no reasonable indication of material injury by reason of the imports of alloy from Ukraine.

B. No Reasonable Indication of Threat of Material Injury by Reason of Allegedly LTFV Imports of Alloy Magnesium from Ukraine

Under the statute, the Commission is required to consider 10 factors in its threat analysis,[129] only eight of which are relevant to this investigation. In making our determination, we considered whether increases in production capacity or existing unused capacity in the exporting country are likely to result in a significant increase in imports of the merchandise to the United States; whether there was a rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level; the probability that subject imports will enter the United States at prices that will have a depressing or suppressing effect on domestic prices; whether there has been a substantial increase in inventories of the subject merchandise in the United States; whether there is underutilized capacity for producing the merchandise in the exporting country; whether there any other demonstrable adverse trends that indicate the probability that importation of the merchandise will be the cause of actual injury; the potential for product-shifting; and 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.[130] In addition, we have taken note that there is a pending antidumping investigation in the European Union (EU) concerning primary magnesium from Ukraine (as well as Russia

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[127] CR at C-16, Table C-12; PR at C-11, Table C-12.

[128] Supp. Table D-4.

[129] See 19 U.S.C. § 1677(7)(F)(i).

[130] 19 U.S.C. § 1677(7)(F)(II), (III), (IV), (V), (VI), (VII), (VIII) and (X). Because these investigations do not involve a subsidy or agricultural product, Factors I and IX are inapplicable.

and Kazakhstan).[131] However, that investigation has not yet been concluded, and there is no evidence at this time of any existing dumping findings or antidumping remedies against Ukrainian alloy magnesium either in the EU or elsewhere.

A finding of threat of material injury must be based on evidence that the threat of material injury is real and that actual injury is imminent. A finding of threat of material injury cannot be based on "mere conjecture or supposition."[132]

Having found that there have been no significant volume or price suppressing or depressing effects of the alloy imports from Ukraine, we further find no evidence that such imports will have any such volume or price effects in the imminent future. There are no end-of-period inventories or increases in inventories of subject Ukrainian imports in the United States.[133]

Although there is a large amount of unused capacity for producing magnesium in Ukraine, one of the two Ukrainian producers has stopped production as of 1993 due to its inability to pay for the necessary raw materials to produce magnesium.[134] The other Ukrainian producer produces only pure magnesium.[135] There is no evidence that the shutdown facility will resume operations any time in the immediate future. There may be some possibility for the remaining producer to shift production from pure magnesium to alloy magnesium. However, there is no record evidence to indicate that market conditions make it likely that this possibility will become reality.[136] First, the demand for primary magnesium is overwhelmingly for pure magnesium. Second, there is significant competition among domestic alloy magnesium and nonsubject alloy magnesium. In combination, these factors mitigate the economic incentives for product-shifting from pure magnesium to alloy magnesium.

Accordingly, we find no reasonable indication that the U.S. primary magnesium industry is threatened with material injury by reason of imports of alloy magnesium from Ukraine.

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[131] We are also required to consider whether dumping findings or antidumping remedies in markets of foreign countries against the same class or kind of merchandise suggest a threat of material injury to the domestic industry. See 19 U.S.C. § 1677(7)(F)(iii).

[132] See 19 U.S.C. § 1677(7)(F)(ii).

[133] CR at D-9, Table D-3; PR at D-9, Table D-3.

[134] CR at II-59 & n. 67: PR at II-45 & n.66.

[135] CR at II-59, n.68; PR at II-45, n.67.

[136] Commissioner Nuzum does not join in the remaining discussion in this paragraph.

Conclusion

In light of the significant and increasing volumes of subject imports of pure magnesium from China, Russia, and Ukraine, and of imports of alloy magnesium from China and Russia, as well as the adverse price effects and the adverse impact on the domestic industry's financial condition, we find that there is a reasonable indication of material injury to the domestic industry producing primary magnesium by reason of allegedly LTFV imports of pure magnesium from China, Russia, and Ukraine and by reason of allegedly LTFV imports of alloy magnesium from China and Russia.[137]

In light of the negligible volume of imports of alloy magnesium from Ukraine, and the lack of any evidence that such imports will have any significant volume or price effects in the immediate future, we find that there is no reasonable indication of material injury or threat of material injury by reason of allegedly LTFV imports of alloy magnesium from Ukraine.

[137] Commissioner Crawford finds no reasonable indication of material injury or threat of material injury by reason of allegedly LTFV imports of alloy magnesium from China and Russia. See Dissenting Views of Commissioner Crawford, infra.

ADDITIONAL AND DISSENTING VIEWS OF CHAIRMAN NEWQUIST

While I concur with the majority's discussion of like product, domestic industry, and condition of the domestic industry, I find their decision substantively questionable and procedurally ill-advised. I do not agree with my colleagues' method of assessing whether there is a reasonable indication that the domestic industry is materially injured, or threatened with material injury, by reason of the subject imports. Specifically, as discussed in greater detail below, I believe my colleagues have imprudently chosen to assess individually the effect of imports of pure magnesium and imports of alloy magnesium from the three subject countries. Accordingly, I find that there is a reasonable indication that the domestic industry producing primary magnesium is materially injured by reason of imports of both pure and alloy magnesium from the People's Republic of China, Russia, and Ukraine, which are allegedly sold in the United States at less-than-fair-value (LTFV).

My disagreement with my colleagues concerning the substance of their conclusion is quite fundamental: where, as here, the Commission finds that one domestic product (primary magnesium) is "like" the two classes or kinds of merchandise (pure and alloy magnesium) subject to investigation, I believe that it is proper to examine the aggregate impact of imports of both products subject to investigation on the domestic industry producing the like product. Instead, my colleagues conclude that they must make two determinations -- whether imports of pure magnesium alone are a cause of injury to the domestic primary magnesium industry and whether imports of alloy magnesium alone are a cause of injury to the domestic primary magnesium industry.

At its base level, my colleagues' method of analysis signals the arbitrary nature of their like product finding. Their separate pure/alloy analysis presupposes a finding of two like products -- a finding that my colleagues did not make.

There is no dispute that the Department of Commerce defines the scope of merchandise subject to the investigation. Similarly, there is no dispute that the Commission defines what product is "like" or "most similar in characteristics and uses with" the article(s) subject to investigation. Further, the courts have recognized that the Commission may find a broader range of products to be like those subject to investigation.[1] From these "truths," however, it does not follow that the Commission must make more than one injury determination where it has found only one like product and one domestic industry corresponding to two or more products subject to investigation.

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[1] Torrington Co. v. United States, 747 F. Supp. 744 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991).

In fact, to the extent that there is an established Commission practice in this regard, it is to assess in the aggregate all classes or kinds of subject imports on the single domestic industry producing the like product. In Certain High-Information Content Flat Panel Displays and Display Glass Therefor from Japan,[2] a majority of the Commission found one like product corresponding to Commerce's two classes or kinds of imports and the majority conducted a single analysis of the effect of imports of both classes and kinds on the domestic industry. Subsequently, the Court of International Trade remanded that determination to the Commission with instructions to conduct separate causation analyses for each class or kind of imports subject to investigation.[3] Although the Commission had little choice but to comply with the Court's remand instruction, three Commissioners, including two who were part of the original majority, stated that, in their view, the court's instruction was erroneous.[4]

Due in part to that particular instruction, a majority of the Commission appealed the remand to the Court of Appeals for the Federal Circuit.[5] That appeal was dismissed for reasons of ripeness unrelated to the substantive question of whether the remand instruction to conduct separate causation analyses was erroneous.[6] Importantly, however, in later proceedings before the remanding court, the court clarified its earlier decision and noted that, "Hosiden I does not preclude the Commission from cumulating the effects of the different classes or kinds of merchandise identified by Commerce . . . "[7]

In light of Hosiden I & II, the most that can be said of whether the Commission may assess the aggregate impact of imports of two classes or kinds of merchandise on a single domestic industry is that the answer is unclear. More significantly, however, the most recent Commission pronouncement on the question, i.e., the last bit of guidance to the parties in these preliminary investigations, is that the Commission does believe it may aggregate such classes or kinds.

In my view, sound and predictable administration of the trade laws effectively requires the Commission, in these preliminary investigations, to follow its most recent pronouncement. Although the question of aggregate assessment was cursorily addressed in the conference and post-conference submissions,[8] neither the parties nor the Commission has had benefit of a full and comprehensive briefing on this

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[2] Inv. No. 731-TA-469 (Final), USITC Pub. 2413 (August 1991).

[3] Hosiden Corp. v. United States, 810 F. Supp. 322 (Ct. Int'l Trade 1992)("Hosiden I").

[4] Certain High-Information Content Flat Panel Displays and Display Glass Therefor from Japan, Inv. No. 731-TA-469 (Remand), USITC Pub. 2610 (March 1993) at note 4.

[5] No. 93-1269 (Fed. Cir. March 18, 1993).

[6] The appeal was dismissed in an unpublished order on July 13, 1993.

[7] Hosiden Corp. v. United States, Slip Op. 94-60 (Ct. Int'l Trade April 14, 1994)("Hosiden II").

[8] Conference transcript at 47-48; Petitioners' post-conference brief at 12-13; Respondents' (Berezniki Titanium-Magnesium Works and Solikamsk Magnesium Works) post-conference brief at 15-16.

dispositive issue. In my opinion, my colleagues' reversal in these preliminary investigations of recent Commission practice, on the basis of only scant discussion and analysis, is arbitrary, particularly as it results in a negative determination.

In Flat Panel Displays, I criticized the Department of Commerce for changing the scope of merchandise subject to investigation between its preliminary final stages.[9] I noted there that the Commission's hearing process is "an indispensable, one-time opportunity for both the parties and the Commissioner to address the issues . . . on a give-and-take basis."[10] Here, by virtue of its analytical framework and their will to apply it for the first time in a preliminary investigation, my colleagues have prevented such indispensable opportunity -- at least as it relates to imports of alloy magnesium from the Ukraine.

Thus, in my view, the proper course would have been, for purposes of these preliminary investigations, to utilize the same approach as in Flat Panel Displays -- an approach the parties could reasonably expect -- and ask the parties to brief this ostensibly outcome-determinative issue in any final investigations. That is consistent with past Commission practice to continuing preliminary investigations which give rise to novel legal issues and is the course I wish my colleagues had taken here.

In summary, I believe it is appropriate to aggregate imports of both pure and alloy magnesium from each of the subject countries for purposes of these preliminary investigations. I address below whether cumulation of such imports from each of the subject countries is warranted.

I. CUMULATION

In reaching my affirmative determinations, I have cumulated imports of both pure and alloy magnesium from all three subject countries. As my determinations are that there is a reasonable indication of present material injury, the statute requires that I cumulatively assess the subject imports if: (i) there is competition between the subject imports themselves and the domestic like product;[11] and (ii) no one country's imports are negligible and without discernible adverse impact on the domestic industry.[12]

As I explained in the Flat-Rolled Carbon Steel investigations,[13] I view this language to require scrutiny of primarily geographic and temporal competition between the subject imports and the domestic like products; assessing competition on the basis

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[9] Inv. No. 731-TA-469 (Final), USITC Pub. 2413 (August 1991) at note 5.
[10] Id.
[11] 19 U.S.C. § 1677(7)(C)(iv)(I).
[12] 19 U.S.C. § 1677(7)(C)(v).
[13] USITC Pub. 2616 (August 1993).

of the substitutability of these products is a lesser consideration.[14] Nowhere does the cumulation provision state that competition is a function of interchangeability based upon the imported and domestic products' characteristics and uses. Such competition is appropriately addressed in the like product analysis.[15] In my view, once a like product determination is made, that determination establishes some inherent level of fungibility within that like product. Only in exceptional circumstances could I anticipate finding products to be "like," and then turn around and find that, for purposes of cumulation, there is no reasonable overlap of competition based upon some roving standard of fungibility.

Rather, in my analytical framework, fungibility is more relevant to the assessment of whether imports are negligible. In that analysis, the fungibility within any like product can be pertinent in determining what level of imports may or may not have a discernible adverse effect on the industry producing the like product.[16] In this regard, I note that there is no magical bellwether to determine negligibility. What may be negligible and without discernible adverse impact will vary from industry to industry -- a function of both the characteristics and condition of the industry.

A. Reasonable Overlap Of Competition

Imports from all three subject countries began entering the U.S. market in 1992.[17] Between 1992 and 1993, each country's imports increased by similar

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[14] My interpretation of this language also reflects my interpretation of the Commission's traditional four factor "competition for cumulation" test. This four factor test has generally been articulated as follows:

> (1) the degree of fungibility between the imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
>
> (2) the presence of sales or offers to sell in the same geographic markets of imports from different countries and the domestic like product;
>
> (3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product; and
>
> (4) whether the imports are simultaneously present in the market.

See, e.g., Certain Cast Iron Pipe Fittings from Brazil, Korea, and Taiwan, Invs. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), aff'd, Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898, 902 (Ct. Int'l Trade 1988), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

[15] See 19 U.S.C. § 1677(10).

[16] 19 U.S.C. §§ 1677(7)(C)(v), 1677(7)(F)(iv).

[17] Report at Table 23.

percentages.[18] During this two year period, the vast majority of all subject imports were consumed by aluminum producers and steel desulfurizers; more than half of domestically produced primary magnesium was consumed by these same end users in this period.[19] Accordingly, I find that there is a reasonable overlap of competition between the subject imports and the domestic like product.

B. Negligibility

None of the three subject countries exported pure or alloy magnesium to the U.S. in 1991.[20] In 1992, each country exported some pure and/or alloy magnesium to the U.S.[21] By 1993, each country's exports accounted for at least 1.7 percent of the volume (2,071 metric tons) and 1.6 percent of the value ($ 5.8 million) of domestic consumption of primary magnesium.[22] Accordingly, I find a reasonable indication that imports from each of the three countries are not negligible and have a discernible adverse impact on the domestic primary magnesium industry.

II. MATERIAL INJURY BY REASON OF LTFV IMPORTS

In determining whether there is a reasonable indication that the domestic industry is materially injured by reason of the allegedly unfair subject imports, the statute requires that I 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 the imports of such merchandise on domestic producers of like products, but only in the context of production operations in the United States.*[23]

In making this determination, the statute permits me to consider "such other factors as are relevant to the determination . . . ," including those within the conditions of competition that are distinctive to the affected industry.[24] I am not required to

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[18] Id.
[19] Report at Table 4.
[20] Report at Table 23.
[21] Report at Table 24.
[22] Id.
[23] 19 U.S.C. § 1677(7)(B)(i).
[24] 19 U.S.C. §§ 1677(7)(B)(ii), 1677(7)(C).

determine that allegedly LTFV imports are "the principal, a substantial or a significant cause of material injury."[25] Rather, a finding that allegedly LTFV imports are a cause of material injury is sufficient.[26]

Imports of pure and alloy magnesium from the People's Republic of China, Russia, and the Ukraine increased throughout the period of investigation, from zero imports in 1991 to 3,089 metric tons in 1992, then rose dramatically to 23,754 metric tons in 1993.[27] By value, imports from the subject countries followed a similar trend, increasing from $0 in 1991 to $9.1 million in 1992, then increased significantly to nearly $57 million in 1993.[28]

Imports from the People's Republic of China, Russia, and Ukraine accounted for an increasing share of domestic consumption of primary magnesium throughout the period of investigation, from 0 percent in 1991 to 2.6 percent in 1992, then to a substantial 19.0 percent in 1993.[29]

I find the rapid increase in volume, value and market share of imports from China, Russia, and Ukraine between 1991 and 1993 to be significant.

The Commission collected sales price data for primary magnesium used by both magnesium granule producers and aluminum producers. In both cases, during 1991 and 1992, a period for which there were no comparable sales data for the subject imports, the domestic price fluctuated and did not demonstrate any discernible trend.[30] In contrast, in 1993, when comparable data were available for the allegedly unfair imports and at a time when imports significantly increased their presence in the market, the domestic price decreased 8.2 percent for sales to granule producers and 4.2 percent for sales to aluminum producers.[31] Furthermore, the subject imports undersold the domestic like product in every available price comparison, by margins ranging between 5.7 percent and 17.6 percent.[32] By comparison, during 1993, subject imports were not sold to diecasters.[33] Domestic prices for sales to diecasters remained stable throughout the year.[34]

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[25] S. Rep. No. 249, 96th Cong., 1st Sess. 57 and 74 (1979).

[26] See, e.g., Metallverken Nederland, B.V. v. United States, 728 F. Supp. 730, 741 (Ct. Int'l Trade 1989); Citrosuco Paulista S.A. v. United States, 704 F. Supp. 1075, 1101 (Ct. Int'l Trade 1988).

[27] Report at Table 24.

[28] Id.

[29] Id.

[30] Report at Tables 25, 26.

[31] Id.

[32] Id.

[33] Confidential Report ("CR") at II-79; Public Report ("PR") at II-59.

[34] Id.

Accordingly, in light of the consistent underselling by the subject imports and the declining sales price for sales to granule and aluminum producers, I find a reasonable indication that the allegedly LTFV imports depressed domestic prices to a significant degree.

III. CONCLUSION

Based on the foregoing, I determine that there is a reasonable indication that the domestic industry producing primary magnesium is materially injured by reason of imports of pure and alloy magnesium from the People's Republic of China, Russia, and Ukraine, which are allegedly sold in the United States at less-than-fair-value.

SEPARATE VIEWS OF COMMISSIONER ROHR

I determine that there is a reasonable indication that the domestic industry producing commodity-grade pure magnesium is materially injured by reason of pure magnesium imports from the People's Republic of China (China), Russia, and Ukraine and by reason of imports of alloy magnesium from the China and Russia that are alleged to be sold in the United States at less than fair value (LTFV).[1] I further find that there is no reasonable indication that the domestic industry is materially injured or threatened with material injury by reason of imports of alloy magnesium from Ukraine that are alleged to be sold in the United States at LTFV.

Like Product and Domestic Industry

As in any title VII investigation, the definition of the like product and domestic industry is the first step in my examination of whether a domestic industry is being materially injured or threatened with material injury by reason of LTFV imports. Section 771(4)(A) of the Tariff Act of 1930 defines the relevant 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 whole domestic production of that product."[2] In turn, the statute defines "like product" 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]

Commerce has defined the imported articles subject to these investigations as two separate classes or kinds of merchandise--pure magnesium and alloy magnesium--and has described these products as follows:

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[1] Material retardation of the establishment of an industry is not an issue in these investigations and will not be discussed further.

[2] 19 U.S.C. § 1677(4)(A).

[3] 19 U.S.C. § 1677(10). My determination of the appropriate like product is a factual determination, to which I apply the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis. I consider a number of factors including: (1) physical characteristics and uses, (2) interchangeability of the products, (3) channels of distribution, (4) customer and producer perceptions of the products, (5) the use of common manufacturing facilities and production employees, and (6) where appropriate, price. No single factor is dispositive, and I may consider other factors relevant to a particular investigation. I look for clear dividing lines among possible like products. See Asociacion Columbiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1169, 1170, n.5 and n.8 (CIT 1988); Sony Corporation of America v. United States, 712 F. Supp. 978, 983 (CIT 1989); see also Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Final), USITC Pub. 2163 (March 1989); 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).

Pure primary magnesium encompasses all products that contain at least 99.95 percent magnesium, by weight (generally referred to as "ultra-pure" magnesium), as well as products containing less than 99.95 percent but not less than 99.8 percent primary magnesium, by weight (generally referred to as "pure" magnesium). ...[A]lloy primary magnesium products which contain 50 percent or greater, but less than 99.8 percent magnesium, by weight.[4]

Commerce's division of magnesium imports into two classes or kinds of merchandise is consistent with its definition of magnesium in its recent investigation of dumped and subsidized magnesium from Canada.[5] In that investigation, I found there were two separate like products and domestic industries corresponding to these two classes or kinds of merchandise as defined by Commerce.[6] Further, I found that there a domestic industry producing one like product, commodity-grade pure magnesium, used primarily as an alloying agent and a chemical reagent, and a separate domestic industry producing a second like product, alloy magnesium, used primarily as a structural metal by diecasting operations.[7]

In these investigations, I have considered the like product and domestic industry questions anew based on the evidence developed in these investigations. I note that I am not bound in these investigations by my findings in the previous investigation. Nevertheless, for purposes of clarity I will discuss my analysis of the like product and domestic industry in these investigations with reference to the similarities and differences to our previous investigation.

The two classes or kinds of merchandise that Commerce defined in its notice of initiation of these investigations are distinguished according to magnesium content, consistent with the definition of separate tariff items in the Harmonized Tariff System of the United States (HTSUS). Although using the same terms, "pure" and "alloy," my definition of separate like products in the Canadian investigation was not based on the magnesium content of the two products. Rather, I distinguished the two like products considering the Commission's traditional like product series of factors which made one product suitable for one set of end uses and the other for a separate and distinct set of end uses.[8] I find nothing in the record of these investigations which causes me to change my view that domestically produced alloy magnesium is not the same like product as domestically produced commodity-grade pure magnesium. In the Canadian investigation, the imports from Canada classified as "alloy" were identical to the alloy

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[4] Initiation of Antidumping Duty Investigations: Pure and Alloy Magnesium From the People's Republic of China, the Russian Federation, and Ukraine; 59 Fed. Reg. 21,748 (April 26, 1994).

[5] Final Affirmative Countervailing Duty Determinations: Pure Magnesium and Alloy Magnesium From Canada, 57 Fed. Reg. 30946, 30947-48 (July 13, 1992).

[6] Magnesium from Canada 731-TA-528 (F) USITC Pub. 2550 (August 1992), Views of Commissioner Rohr at 28.

[7] *Id.* at 29.

[8] Id., p.23 and 34

products produced by the domestic alloy industry, as I defined that product and industry. The record in these investigations reveals an important distinction between the articles covered within the scope of the Canada investigation and the articles covered by these investigations. In these investigations, the "alloy" articles being imported from the China, Russia, and Ukraine defined by Commerce are distinctly different from "alloy" products produced by the domestic industry. The "alloy" articles being imported from the China, Russia, and Ukraine as defined by Commerce are not used for structural purposes, such as diecasting operations, that distinguished domestically produced alloy from other domestically produced magnesium. Rather they are considered "alloy" because they fall below the 99.8 percent magnesium content used in the tariff schedules to define pure magnesium. In fact, the subject alloy imports in these investigations have a magnesium content falling between 99.6 percent and 99.8 percent. This is significantly different from the approximately 91 percent magnesium content that characterizes the typical "alloy" magnesium (produced by U.S. and Canadian producers) used by diecasters that was the basis for my characterization of a separate alloy "like product" and "domestic industry" in the Canada investigation.

There is no question that the material being imported from the China, Russia, and Ukraine is correctly classifiable as alloy material within the terminology of the tariff schedules if it has a magnesium content of less than 99.8 percent. It is therefore included in the distinct class or kind of alloy magnesium which Commerce has defined for purposes of these investigations.[9]

However, when I define the product which is "like" these imports, I must look beyond its classification. The physical characteristics of the alloy material subject to this investigation, as defined by its purity content are much closer to that of commodity-grade pure magnesium than it is to the alloy magnesium used in structural application which I previously defined as a separate like product. With a magnesium content of over 99 percent it is, in fact, not usable in the applications for which domestic alloy magnesium is used.[10] It is sold to and used by the same purchasers as commodity-grade pure magnesium rather than by the purchasers of alloy magnesium. It is used for the same purposes as commodity-grade pure magnesium, not for the purposes that alloy magnesium is used. It is perceived by purchasers as "off-

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[9] I do not feel it is appropriate for the Commission to look behind the Commerce decision. Whether Commerce might review its determination in its subsequent proceeding is a matter for it, not the Commission. My view that these imports are within the alloy class or kind found by Commerce is merely an observation that given how Commerce has defined its class or kind of merchandise, these imports are "alloy," and does not imply any judgement as to whether this class or kind is appropriate given the facts of this investigation.

[10] As in the prior case, there was evidence on the record that one domestic producer and purchaser were experimenting with an alloy material similar to that used by diecasters in the traditional uses of commodity grade pure magnesium. As in the Canadian investigation, I do not find that this minimal overlap detracts from the finding that alloy magnesium, as defined is a different like product from commodity grade pure magnesium.

specification" commodity-grade pure material rather than as alloy material. Its price is more similar to that of commodity-grade pure material than it is to alloy material.

I conclude therefore that the domestic product which is like this imported commodity-grade pure magnesium is the domestically produced commodity-grade pure material. I also conclude that the domestic product which is like the imported "alloy" magnesium is also the domestic commodity- grade pure magnesium material.

For purposes of these preliminary investigations, therefore, I conclude that the product which is like both the imported pure magnesium and the imported alloy magnesium is the domestic commodity-grade pure magnesium. The domestic industry therefore includes the operations of domestic producers of commodity-grade pure magnesium but not the domestic operations of producers of alloy magnesium.

Condition of the Industry

In assessing whether there is material injury to the domestic industry, the Commission is instructed to consider "all relevant economic factors which have a bearing on the state of the industry in the United States . . ."[11] In that assessment I consider, among other relevant factors, U.S. consumption, production, shipments, capacity utilization, employment, wages, financial performance, capital investment, and research and development expenses.[12] No single factor is dispositive and in each investigation, I consider the particular nature of the industry under investigation[13] in the context of "the business cycle and conditions of competition that are distinctive to the affected industry."[14]

For purposes of these investigations, I note that an important condition of trade which effects my evaluation of the condition of the industry was the conduct of investigations and eventual imposition of countervailing and antidumping duties on unfairly traded imports of magnesium from Canada in 1992. The imports subject to these investigation were not present in the U.S. market prior to that investigation. The data show they first entered the U.S. market in 1992 in small quantities and the presence of the imports are concentrated primarily in 1993. My assessment of the condition of the industry thus focuses primarily on 1993, and on the changes between 1992 and 1993, when the imports were present in the U.S. market.

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[11] 19 U.S.C. § 1677(7)(C)(iii).

[12] See 19 U.S.C. § 1677(7)(C)(iii).

[13] 19 U.S.C. § 1677(7)(C)(iii). See also H.R. Rep. No. 317, 96th Cong., 1st Sess. 36; S. Rep. No. 249, 96th Cong., 1st Sess. 88.

[14] 19 US.C. § 1677(7)(C)(iii).

Apparent domestic consumption of commodity-grade pure magnesium increased substantially from 1991 to 1992, then increased slightly from 1992 to 1993.[15] Domestic production has declined by *** percent from 1992 to 1993, capacity has decreased by *** percent from 1992 to 1993, and capacity utilization has fallen from *** percent in 1992 to *** percent in 1993. Despite steadily increasing demand, the quantity and value of domestic shipments, which had increased substantially in 1992, declined dramatically from 1992 to 1993.[16] Domestic market share of commodity-grade pure magnesium grew from *** percent in 1991 to *** percent in 1992, then dropped dramatically in 1993 to just over *** percent.[17] Inventories in relation to U.S. shipments decreased by *** percentage points from 1991 to 1992 but more than doubled (from *** percent to *** percent) from 1992 to 1993.[18]

Employment figures, including the number of production workers, number of hours worked, and productivity, all declined from 1992 to 1993. Total compensation increased slightly over the same period.[19]

The financial indicators of the domestic industry show improvement over the period of investigation but remained throughout the period at levels which reflect material injury. Net sales increased substantially from 1991 to 1992, but declined significantly in 1993, to below 1991 levels. Gross profits increased steadily over the period, although they initially started from a negative base. Operating income was negative throughout the period of investigation although losses were smaller. In relation to net sales, domestic producers' cost of goods sold decreased from *** percent in 1991 to *** percent in 1993.[20] However, the operating income margin remained negative, improving only from *** percent in 1991 to *** percent in 1993.[21]

To summarize, it appears that most of the important performance indicators for this industry were down, particularly when looking at 1993 compared with 1992. While some of the financial indicators did not decline, they were at levels which were indicative of injury throughout the period of investigation. Based on the foregoing performance indicators, I find a reasonable indication that the domestic industry producing commodity-grade pure magnesium is currently experiencing material injury.

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[15] Apparent consumption is generally calculated by adding together domestic shipments and imports. The staff report calculates domestic consumption of "pure" magnesium by adding domestic shipments of pure magnesium to imports of pure magnesium. Because we concluded that imports of "alloy" magnesium from the three countries subject to investigation are "like" pure magnesium, I find it appropriate to add these imports into apparent consumption of pure magnesium for purposes of my analysis.

[16] CR at C-4; PR at C-3. Shipments *** from *** tons in 1992 to *** tons in 1993.

[17] See footnote 15.

[18] CR at C-8; PR at C-5.

[19] CR at II-40; PR at II-34.

[20] CR at C-10; PR at C-6.

[21] CR at C-10; PR at C-6.

Material Injury by Reason of LTFV Imports

In determining whether the domestic industry is materially injured by reason of the imports under investigation, the statute directs me 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...*[22]

In making this determination, I may consider "such other economic factors as are relevant to the determination . . ."[23] Although I may consider information that indicates that injury to the industry is caused by factors other than the unfairly traded imports, I do not weigh causes. I further note that I need not determine that imports are "the principal, a substantial or a significant cause of material injury.[24] Rather, a finding that imports are a cause of material injury is sufficient."[25] I note that these investigations involve imports from multiple countries, thus raising issues of cumulation, which I consider before examining the causal nexus between the imports and the condition of the domestic industry.

Cumulation

These investigations involve two classes or kinds of imports from three different countries whose presence in the U.S. market are relatively new, and in some cases relatively small, and which are affecting a single domestic industry. These unique set of circumstances present three issues related to cumulation that I must address: (1) negligibility; (2) the appropriateness of cumulation of the effects of two separate classes or kinds of imported articles; and (3) the appropriateness of cumulation of the imports from the three countries subject to investigation; the China, Russia, and Ukraine. I address these issues seriatim.

1. *Negligibility*

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[22] 19 U.S.C. § 1677(7)(B)(i).
[23] 19 U.S.C. § 1677(7)(B)(ii).
[24] S. Rep. No. 249, 96th Cong., 1st Sess. 57 and 74 (1979).
[25] E.g., Metallverken Nederland. B.V. v. United States, 728 F. Supp. 730, 741 (Ct. Int'l Trade 1989); Citrosuco Paulista S.A. v. United States, 704 F. Supp. 1075, 1101 (Ct. Int'l Trade 1988).

In its assessment of the causal nexus between imports and the condition of the domestic industry, the Commission is not required to cumulate those imports of merchandise subject to investigation that it determines are negligible and have no discernible adverse impact on the domestic industry.[26] In determining whether imports are negligible, the Commission considers all relevant economic factors including whether:

> *(I) the volume and market share of the imports are negligible,*
>
> *(II) sales transactions involving the imports are isolated and sporadic, and*
>
> *(III) the domestic market for the like product is price sensitive by reason of the nature of the product, so that a small quantity of imports can result in price suppression or depression.*[27]

Based on information obtained in these investigations, the negligible import provision is a potential issue in this investigation. Initially, I find that, because the Commerce Department has defined two separate classes or kinds of merchandise, the negligibility provision of the statute must be applied individually to each class or kind or merchandise from each country. I find this is a requirement of law based on the requirement that the Commission make separate determinations with respect to each class or kind of merchandise defined by Commerce. Separate determinations require separate application of the negligibility requirement.

In examining the classes or kinds of imports subject to these investigations from the three countries subject to investigation, I find that imports of pure magnesium from Russia (over *** percent of domestic consumption), and from Ukraine (almost *** percent of domestic consumption), are clearly well beyond the level which brings into play the negligibility provisions. Imports of pure magnesium from the China (almost *** percent of consumption), of alloy magnesium from the China (*** percent of consumption), and of alloy magnesium from Russia (*** percent of consumption), are closer to a level at which negligibility is a serious issue. Because pure magnesium is a commodity type product and hence sensitive to price, I do not feel it would be appropriate in these preliminary investigations to determine that these levels of imports are negligible.

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[26] 19 U.S.C. § 1677(7)(C)(V).

[27] 19 U.S.C. § 1677(7)(C)(V). Both the House Ways and Means Committee Report and the Conference Committee Report stress that the Commission is to apply the exception narrowly and that it is not to be used to subvert the purpose and general application of the mandatory cumulation provision of the statute. See H.R. Rep. No. 40, Part 1, 100th Cong., 1st Sess. 141 (1987); H.R. Rep. No. 576, 100th Cong., 2d Sess. (1988) at 621. The House Ways and Means Committee Report further emphasizes that whether imports are "negligible" may differ from industry to industry and, for that reason, the statute does not provide a specific numeric definition of negligibility. Id. at 131. See also Torrington, Slip. Op. at 19-20.

The remaining imports are of alloy magnesium from the Ukraine. There were no imports of this material in 1991 and 1992, and only 17 tons in 1993.[28] These imports thus accounted for a market share of less than 0.02 percent in only one year of the investigation, 1993.[29] Even in a price sensitive commodity market, 17 tons of material accounting for less than 0.02 percent of consumption is a negligible volume of imports. These is no evidence that 17 tons of material had any discernible impact on the domestic industry. I therefore determine that these imports were negligible and cannot be cumulated with any other imports subject to these investigations. I further determine, for the same reasons, that there is no reasonable indication that these imports are by themselves a cause of material injury to the domestic industry.

2. *Cumulation of Different Classes or Kinds of Imported Articles*

The Commission traditionally undertakes cumulation in two different situations. The first is statutory or mandatory cumulation undertaken in the situations prescribed by Section 777 (7)(C)(iv). The second is discretionary cumulation which the Commission uses in other situations when it determines that the conditions of competition for the affected industry make it appropriate. I can find no indication that Congress directly considered the issue of cumulation of different classes or kinds of imported articles when it enacted section 777 (7)(C)(iv). Its concern seems to have been principally with cumulation of imports from different countries. I therefore find that the issue in these investigations is whether circumstances of these investigations make cumulation appropriate under the Commission's discretionary cumulation authority.

I find that the imports of the two classes or kinds of imported merchandise should be cumulated under the specific facts presented in these investigations. I note that there is a single domestic industry against which the impact of imports is to be measured in these investigations. The imports are in fact competitive. It is true that alloy magnesium, as used by diecasters for structural uses, does not generally compete with commodity- grade pure magnesium used for chemical or metallurgical uses. However, the imports of alloy magnesium subject to these investigations from the China, Russia and the Ukraine are not of the kind used in structural applications by diecasters. Rather the imports are of "off-spec" commodity-grade pure magnesium. They are only marginally below the purity levels and prices of commodity-grade pure material. They are used for the same purposes by the same users as commodity-grade pure magnesium. While their use may be somewhat limited to that set of uses in which the higher level of impurities is not important, this does not significantly distinguish them from commodity-grade pure magnesium. They therefore compete with commodity-grade pure magnesium rather than with alloy magnesium in the domestic market.

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[28] See footnote 15.
[29] See footnote 15.

I have found that the alloy magnesium from these countries is "like" domestically produced commodity-grade pure magnesium just as the commodity-grade pure imports from these countries are "like" domestically produced commodity-grade pure magnesium. Having found further that the two classes or kinds of material compete for the same customers with commodity-grade pure magnesium, I find it appropriate to cumulate these two classes or kinds of imports for purposes of my analysis as a discretionary matter in light of commercial circumstances as discussed above.[30]

3. *Cumulation of Imports from the China, Russia, and Ukraine*[31]

Finally, the Commission, pursuant to section 777 (7)(C)(iv) must cumulate the volume and price effects of imports from more than one country in cases in which imports satisfy the following three criteria:

(1) they must compete with other imported products and with the like domestic product;

(2) they must be marketed within a reasonably coincidental period; and

(3) they must be subject to investigation.

The record clearly shows that imports of commodity-grade pure magnesium and alloy magnesium from the countries subject to investigation compete both with one another and with the domestically produced commodity-grade pure magnesium. They entered the country and increased rapidly after antidumping and countervailing orders were imposed on unfairly traded magnesium from Canada. They are all subject to investigation. The requirements for cumulation of the imports from all three countries are therefore met. I therefore cumulate the price and volume effects of these imports for purposes of my analysis.

Causation

The volume of allegedly LTFV imports of pure and alloy magnesium increased dramatically over the period of investigation in terms of both quantity and value. The

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[30] Because alloy magnesium from Ukraine cannot be cumulated because of the statutory prohibition of cumulation of negligible imports, I do not cumulate such imports despite the similarity to the commodity grade pure imports from the Ukraine.

[31] This analysis is based on an assessment of both the pure and alloy imports from these countries, pursuant to my previous decision on cumulation of classes of kinds of material, except, of course, for references to Ukraine, which include only imports of commodity grade pure magnesium, because imports of alloy magnesium from this country are negligible.

volume of subject imports increased from no imports in 1991 to 23,754 tons in 1993.[32] [33] There has been a dramatic increase in market penetration of subject imports, from no share in 1991 to *** percent in 1993.[34] As I stated earlier, during this same period, domestic producers' domestic shipments and market share declined sharply from 1992 to 1993.[35] These imports came into the United States following the imposition of duties to offset the unfairly traded Canadian imports and replaced those unfairly traded imports. Clearly there is nothing in U.S. law which requires that following the imposition of dumping duties the market share of the formerly unfairly traded imports must go to the domestic industry. Consumers may continue to purchase the imports with the duties imposed, which are deemed the equivalent of fairly traded at that point, or they may turn to other fairly traded imports. The domestic industry would have no basis for complaint in such situations, although they might be disappointed. They do have a right not to have the market share of the unfairly traded imports replaced by other unfairly traded imports. Here the volume of such unfairly traded imports which replaced the formerly unfairly traded Canadian imports is substantial both absolutely and relative to the market, and it is growing.

In light of the high degree of substitutability between U.S. commodity-grade pure and the high magnesium content of alloy magnesium from the China and Russia, this coincidence of increased imports, declines in domestic shipments of U.S.-produced magnesium, and declines in prices of magnesium sold in the U.S. market are particularly significant.[36] [37]

I find a direct correlation between the affirmative finding of injury in the final determination in the previous Canada case and the sudden increase in subject imports of magnesium. I note that subject imports increased which was likely to be a direct result of the immediate decrease of unfairly traded imported magnesium from Canada.

The increase of subject imported magnesium also appears to have had an immediate effect on domestic prices.[38] In 1992, correlating with limitations on Canadian imports, the trend of domestic prices was upward. In 1993, when the volume of the imports from China, Russia, and Ukraine, had clearly reached substantial levels, the domestic price immediately leveled and by late 1993 had begun to decrease. At the same time, the prices of these imports were substantially below U.S. prices in all cases. We therefore see an immediate change in the direction of U.S. prices, and an eventual decline in their level coincident with the introduction of a substantial quantity

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[32] See footnote 15.

[33] See New Steel Rails from Canada Inv. Nos. 701-TA-297, 731-TA-422 (Final), USITC Pub. 2217 (Sept. 1989) at 18-19 (Majority Views).

[34] See footnote 15.

[35] CR at C-14-15; PR at C-9-10.

[36] Confidential staff report at II-77 and D-3; PR at II-58 and D-3.

[37] Economic Memorandum, EC-P-056 (August 5,1992).

[38] CR at II-75, Table 25 and II-77, Table 26; PR at II-57-58, Tables 25 & 26.

of imports from the China, Russia, and Ukraine at levels which undersold the domestic product. This clearly provides a reasonable indication of underselling resulting in price suppression and then depression.[39] As the supply of magnesium in the U.S. market increased, as a result of subject imports, prices dropped. In this market, the consistent pattern of downward price competition relative to the increase in shipments of the imports subject to investigation points to the flood of unfairly traded imports as instrumental in the price decline and resultant injury to the U.S. industry.

The impact of both the volume and price effects of the imports are clearly related to the condition of the industry because of the conditions faced by this industry. Because of the prohibitive costs of recharging the electrolytic cells used to produce magnesium, the U.S. producers-are forced to maintain production and keep selling their product at any cost.[40] The substantial increases in the China, Russia, and Ukraine's share of the market at prices well below those of the domestic industry placed significant pressure on the domestic producers to lower their prices and to keep unnecessarily building their inventories, most dramatically from 1992 to 1993.[41]

Given the fungible nature of this product, the substantially increasing amount of unfairly traded imports, and the corresponding declines in domestic shipments, market share, and prices, I determine that there is a reasonable indication the subject imports are a cause of the material injury currently being experienced by the domestic commodity-grade pure magnesium industry.

Based on my analysis of the record in these investigations and the statutory factors, I conclude there is a reasonable indication that the domestic industry producing commodity-grade pure magnesium is materially injured by reason of alleged LTFV imports of pure magnesium and alloy magnesium from the China and Russia, and that there is reasonable indication that the domestic industry is materially injured by LTFV imports of pure magnesium from Ukraine.

No Threat of Material Injury by Reason of Imports of Alloy Magnesium from Ukraine

Under the statute, the Commission is required to consider the following criteria in making threat determinations:

> *(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),*

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[39] CR at II-75, Table 25 and II-77, Table 26; PR at II-57-58, Tables 25 & 26.
[40] Northwest Alloys does not use the electrolytic process; it uses the silicothermic process.
[41] CR at C-8 and C-9; PR at C-5.

(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 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) *in any investigation under this title which involves imports of both raw agricultural product (within the meaning of paragraph (4)(E)(iv) and any product processed from such raw agricultural product, the likelihood 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.*[42]

I cannot make a finding of threat of material injury to exist unless evidence of threat is real and actual injury is imminent. I must also not base a finding with respect to threat of material injury on "mere conjecture or speculation."[43]

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[42] In addition, we must consider whether dumping findings or anti-dumping remedies in markets of foreign countries against the same class or kind of merchandise suggest a threat of material injury to the domestic industry. See 19 U.S.C. § 1677(7)(F).

[43] See 19 U.S.C. § 1677(7)(F)(ii).

This antidumping investigation does not involve subsidies or agricultural products. There are no dumping findings or remedies in third countries which affect my decision.

With respect to factors II and VI, I do not find any significant capacity increases or excess or underutilized capacity in Ukraine that would likely result in a significant increase in exports to the United States. There is no indication in the record that "off-spec" production is intended or desirable to producers of commodity-grade pure magnesium. This is what the 17 tons of alloy material imported from the Ukraine were. I do not find therefore that the limited amount of information about capacity is a compelling reason to make an affirmative determination.

With respect to factor III, import market penetration was zero percent in 1991 and 1992 and increased to less than 0.02 percent in 1993. The market for "off-spec" commodity-grade material is in fact limited and the data provide no basis for a conclusion that imports will rise to an injurious level within any time frame that could be conceived of as reasonably imminent.

With respect to factor IV, I find while the record indicates that the Ukrainian imports did enter the U.S. at prices below the domestic industry, the limited volume of the material precludes them from having any generally price depressing or suppressing effect.

With respect to factor V, inventories of the imported product in the U.S. is nonexistent.

With respect to factor VII, I find no other demonstrable trends that would support a finding of threat of material injury.

With respect to item X, I cannot conclude that any existing or potential effects on existing development or production efforts of the domestic industry are being affected in such a manner as to warrant a threat finding.[44] I note that existing funding for capital expenditures and research and development, while fluctuating, remain significant.[45]

I note that while there is a possibility of product shifting, this product shifting would be limited to production of "off-spec" commodity-grade pure magnesium as the sole producer for export to the United States during the period of investigation does not produce the type of alloy magnesium used in structural applications. Given the limited market for "off-spec" material I do not find that this possibility of product shifting presents a threat to the domestic industry.

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[44] CR at E-3; PR at E-3.
[45] CR at II-52, Tables 18 & 19; PR at II-39-40, Tables 18 & 19.

I therefore make a negative determination with respect to the imports from Ukraine. There is no reasonable indication that such imports threaten material injury to the domestic industry.

ADDITIONAL VIEWS OF COMMISSIONER JANET A. NUZUM

I concur with the majority's views explaining our affirmative determinations with respect to subject imports of pure magnesium from China, Russia and Ukraine, and the negative determination with respect to subject imports of alloy magnesium from Ukraine. These additional views explain my affirmative determinations with respect to imports of alloy magnesium from China and Russia.

As discussed in the majority views, there is considerable evidence suggesting that subject imports of alloy magnesium from China and Russia compete with subject imports of pure magnesium from China, Russia and Ukraine for sales to the same end users. According to the foreign producers of the magnesium falling within the scope of the class or kind of merchandise defined by Commerce as "alloy magnesium," the products are produced as pure magnesium but fail to meet the 99.8-percent-magnesium content that defines pure magnesium.[1] The alloy magnesium imports are sold to the same end users -- desulfurizers and aluminum producers -- who purchase both domestically-produced and imported pure magnesium. As such, volume increases and pricing practices of subject imports of pure magnesium will affect the U.S. primary magnesium industry at the same time that subject imports of alloy magnesium are competing in the market. The fact that domestic producers of primary magnesium are facing allegedly unfair import competition from pure magnesium imports, as well as alloy magnesium imports, is thus a relevant condition of competition affecting the domestic industry at this time.

In 1991, there were no imports of alloy magnesium from China or Russia; the cumulated import volume in 1992 was 96 metric tons in 1992; and in 1993, 1,727 metric tons were imported from these countries.[2] The degree of market penetration for the cumulated imports of alloy magnesium reached 1.4 percent in 1993.[3] Although these volumes are small, and the increases must take into account the small base from which they are measured, alloy magnesium imports increased at the same time as the rapid increase in imports of pure magnesium from China, Russia and Ukraine. The significance of the increasing volumes of subject imports of alloy magnesium is thus greater in light of the evidence of direct competition between subject imports of pure and alloy magnesium for sales to the same end users.

There were no reported prices for imports of alloy magnesium from Russia. Some pricing information for imports of alloy magnesium from China, as well as for imports of pure magnesium, was collected. These particular reported prices, however, were for a mixture of purity levels of magnesium, and were for spot sales, rather than

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[1] CR at II-56, n.62, II-69, n.74; PR at II-43, n.62 and II-54.
[2] CR at C-13, Table C-10; PR at C-8, Table C-10.
[3] Supp. Table D-4.

contract sales as had been requested in the questionnaire.[4] In sum, the Commission was not able to obtain pricing information for subject imports of alloy magnesium on which it could rely. Consequently, I examined unit values of the subject imports and domestic primary magnesium. I am mindful that unit values should be used with care since they may be affected by differences in product mix. I note, however, that magnesium is a commodity-type product. Further, the subject alloy magnesium imports are sold to the same purchasers for the same end uses as domestic primary magnesium. Thus, in these particular investigations where there is no reliable pricing data available, unit values can be a useful, if limited, indicator of relative differences in prices between competing products.

The cumulated unit value of the alloy magnesium imports from China and Russia in 1993 was $2,587 per metric ton,[5] significantly lower than the unit value for U.S.-produced primary magnesium.[6] The unit value for Chinese alloy magnesium increased marginally from $2,848 per metric ton in 1992 to $2,879 in 1993, an increase of little more than one percent.[7] The unit value for Russian alloy magnesium in 1993 was $2,252 per metric ton.[8] This suggests that the lower-valued subject imports may be underselling domestically-produced primary magnesium.

With respect to assessing the impact of the subject alloy magnesium imports on the domestic industry, I note that the industry's performance appeared to improve as antidumping and countervailing duty orders were being imposed on unfair imports of magnesium from Canada.[9] Domestic production, shipments, market share and financial performance all increased.[10] From 1992-93, however, there were several reversals in these trends, even though domestic consumption increased 3.8 percent. Domestic production, shipments and capacity utilization all declined, as did domestic market share.[11] Further, the industry continued to have operating losses throughout the period of investigation.[12]

Domestic producers of both pure and alloy magnesium were found in 1992 to have been materially injured by reason of dumped and subsidized imports of magnesium from Canada. Despite some subsequent improvement in its performance,

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[4] CR at II-80; PR at II-61.
[5] CR at C-13, Table C-10; PR at C-8, Table C-10.
[6] The 1993 per metric ton value for U.S.-produced primary magnesium was $3,007 per metric ton. Supp. Table D-4.
[7] Supp. Table D-4.
[8] Id.
[9] See Views of Chairman Newquist, Vice Chairman Watson, Commissioner Crawford and Commissioner Nuzum at I-13.
[10] Id.
[11] Id. at I-13-14.
[12] Id. at I-14.

domestic producers of magnesium appear again to be suffering material injury by reason of allegedly unfair imports.

In these preliminary investigations, I find a reasonable indication of material injury by reason of allegedly LTFV imports of alloy magnesium from China and Russia.

DISSENTING VIEWS OF COMMISSIONER CRAWFORD

On the basis of information obtained in these preliminary investigations, I determine that there is no reasonable indication of material injury or threat of material injury to an industry in the United States by reason of imports of alloy magnesium from the People's Republic of China (China) and Russia alleged to be sold at less-than-fair-value (LTFV).

Having joined in the views of the majority of the Commission, supra, I concur with my colleagues therein in the determination of like product; in the discussion of the condition of the industry; in the decision to cumulate imports of pure magnesium from China, Russia and Ukraine; and in the decision to cumulate imports of alloy magnesium from China and Russia. I also concur that there is a reasonable indication that an industry in the United States is materially injured by reason of allegedly LTFV imports of pure magnesium from China, Russia and Ukraine. I further concur that there is no reasonable indication of material injury or threat of material injury to an industry in the United States by reason of allegedly LTFV imports of alloy magnesium from Ukraine.

However, I dissent from my colleagues' determination that there is a reasonable indication of material injury to an industry in the United States by reason of allegedly LTFV imports from China and Russia. I determine that there is no reasonable indication of material injury or threat of material injury to an industry in the United States by reason of allegedly LTFV imports of alloy magnesium from China and Russia.

My negative determination is based on a determination that primary (i.e., pure and alloy) magnesium is the like product that corresponds to the imports of alloy magnesium defined by the Commerce Department's scope of investigation; that the domestic industry consists of the three domestic firms that produce pure magnesium, alloy magnesium or both; and the decision to cumulate imports of alloy magnesium from China and Russia. My analysis follows.

I. NO REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS OF ALLOY MAGNESIUM FROM CHINA AND RUSSIA

In determining whether a domestic industry is materially injured by reason of the allegedly LTFV (i.e., subject) 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 . . .*[1]

In assessing the effect of subject imports, I compare the current condition of the domestic industry to that which would have existed had imports been fairly priced.[2] Then, taking into account the condition of the industry, I determine whether the resulting change of circumstances constitutes material injury.

In my analysis of material injury, I evaluate the effects of the dumping. To evaluate the effects of the dumping on domestic prices, I compare domestic prices that existed when the imports were dumped with what domestic prices would have been if the imports had been priced fairly. Similarly, to evaluate the impact on the domestic industry, I compare the state of the industry when the imports were dumped with what the state of the industry would have been if the imports had been priced fairly. In this regard, the impact on the domestic industry's production and revenues is critical, because the impact on other industry indicators (e.g. employment, wages, etc.) is derived from the impact on production and revenues.

I then determine whether the price, production and revenue effects of the dumping, either separately or together, demonstrate that the domestic industry would have been materially better off if the imports had been priced fairly. If so, I find that the domestic industry is materially injured by reason of dumped imports. For the reasons discussed below, I find that there is no reasonable indication that the domestic industry is materially injured by reason of cumulated subject imports from China and Russia.[3]

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[1] 19 U.S.C. § 1677(7)(B)(i). In making its determination, the Commission may consider "such other economic factors as are relevant to the determination." 19 U.S.C. § 1677(7)(B)(ii).

[2] 19 U.S.C. § 1677(7)(C)(iii).

[3] I have considered and weighed all the evidence in the record in accordance with the holding in American Lamb Co. v. United States, 785 F. 2d. 994 (Fed. Cir. 1986).

A. Volume of the Allegedly LTFV Imports

In 1993, the domestic industry's shipments of primary magnesium accounted for a market share of 74.2 percent, and the cumulated market shares of subject alloy magnesium imports was 1.4 percent.[4] Based on this small cumulated market share, I do not find the volume of subject imports from China and Russia to be significant.

B. Effect of Allegedly LTFV Imports on Domestic Prices

To analyze the effect of subject imports on domestic prices of the like product, I consider a number of factors relating to the industry and the nature of the products. These factors include the availability of substitute products in the market, the degree of substitutability between the subject imports and the domestic like product, and the presence of fairly traded imports. For the reasons stated below, I find that the subject imports had no significant price effects on the domestic primary magnesium industry.

While the dumping margins in these preliminary investigations are little more than petitioners' estimates, they represent the best information available at this time. The alleged margins are so high that is unlikely that any subject imports would have entered the domestic market if they had been fairly priced. Giving petitioners the benefit of the doubt, I have assumed that no subject imports would have been sold in the domestic market at fairly traded prices.

Record evidence indicates that, although other products can be substituted for alloy magnesium, there are no widely-accepted substitutes in the market.[5] Therefore, purchasers of subject alloy imports would have been unlikely to purchase substitute products in response to an increase in the price of subject imports. With respect to product differentiation between subject imports and the domestic like product, the record indicates that there are quality differences between and among Chinese and Russian alloy magnesium and domestic magnesium.[6] Based on this evidence, I find that domestic magnesium and subject imports are moderate, but not close, substitutes. However, for purposes of these preliminary investigations, I give the domestic industry the benefit of the doubt and assume that domestic magnesium and subject imports are good substitutes. Therefore, I assume that purchasers would not shift to other products and that they would buy more domestic magnesium had the price of subject imports been higher, or if subject imports were priced out of the market altogether.

Even if subject imports had been priced out of the market, the domestic industry would not have been able to increase its prices. Production capacity is available, and

[4] Supp. Table D-4.
[5] CR at II-14 and II-70; PR at II-12 and II-55.
[6] CR at II-69 to 72 and II-81 to 83; PR II-54-55 and II-62.

the domestic industry is competitive, consisting of three firms producing the like product. Therefore, attempts by one producer to increase prices would have been met and "beaten back" by the other producers. In addition, the availability of substantial quantities of nonsubject imports would have limited the ability of domestic producers to increase their prices. As a result, I find that competition among the domestic producers themselves, and with nonsubject imports, would have minimized or prevented any price increase for the like product even without the presence of subject imports. Hence, subject imports cannot be found to have had any adverse effect on domestic prices.

C. Impact of Allegedly LTFV Imports on the Domestic Industry

In assessing the impact of LTFV imports on the domestic industry, I consider, among other relevant factors, output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital and research and development.[7] These factors either encompass or reflect the volume and price effects of the dumped imports, and so I must gauge the impact of the dumping through those effects.

As discussed above, I have assumed that no subject imports would have been sold in the domestic market at fairly traded prices. Because of competition in the U.S. market, domestic prices would not have increased had subject imports been priced out of the market. As a result, any impact of subject imports on the domestic industry would have been on the volume of the domestic industry's output and sales.

The domestic industry's capacity utilization rate was 78.9 percent in 1993. Therefore, if subject imports had been priced out of the market, the domestic industry had more than sufficient available capacity to replace them. Nonsubject imports were also available to satisfy demand had subject imports not been in the market. Although it is likely that purchasers would have purchased nonsubject imports as well as domestic magnesium to replace subject imports, for purposes of these preliminary investigations, I have given petitioners the benefit of the doubt and assumed that the domestic industry would have captured the entire market share of subject imports.

If the domestic industry had captured the entire market share of subject imports, it would have increased its market share by 1.4 percent. This increase in market share is so small that the domestic industry's output and revenues would not have increased significantly. Therefore, I conclude that even giving all benefit of the doubt to the domestic industry, it would not have been materially better off if subject imports had been fairly priced. Having weighed the evidence of record, as well as giving petitioners the benefit of the doubt on certain issues, I therefore determine that there is

[7] 19 U.S.C. § 1677(C)(iii).

no reasonable indication of material injury by reason of allegedly LTFV imports of alloy magnesium from China and Russia.

II. NO REASONABLE INDICATION OF THREAT OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS OF ALLOY MAGNESIUM FROM CHINA AND RUSSIA

I have considered the enumerated statutory factors that the Commission is required to consider in its determination.[8] A determination that an industry "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."[9]

I am mindful of the statute's requirement that my determination must be based on evidence, not conjecture or supposition. Accordingly, I have distinguished between mere assertions, which constitute conjecture or supposition, and the positive evidence[10] that I am required by law to evaluate in making my determination.

Although the data regarding Chinese and Russian capacity and production are limited, I have based my analysis on the information available. The limited information consists of data for primary magnesium; separate information for pure and alloy magnesium is not available in these preliminary investigations. Giving petitioners the benefit of the doubt, I have assumed that the information indicates that there is available production capacity in China and Russia for producing alloy magnesium and exporting it to the United States. However, I find that the available capacity is not likely to result in a significant increase in imports of alloy magnesium to the United States. First, there are significant export markets for both Chinese and Russian magnesium, so the foreign producers are not primarily reliant on the U.S. market. Second, Chinese exports to the United States are projected to decrease significantly in 1994. Third, imports of alloy magnesium from Russia represent only a small portion, 4.6 percent, of total imports from Russia, evidence that the Russian producers' economic interests lie almost exclusively in producing pure magnesium. Finally, because the demand for magnesium in the U.S. market is overwhelmingly concentrated in pure magnesium, and there is significant competition among domestic and nonsubject alloy magnesium in the market, foreign producers have limited economic incentives to employ available production capacity to increase exports of alloy magnesium to the United States. For these reasons, I find that the information relevant to production capacity and unused or underutilized capacity in the exporting countries

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[8] 19 U.S.C. § 1677(F)(i).
[9] 19 U.S.C. § 1677(7)(F)(ii).
[10] See American Spring Wire Corporation v. United States, 590 F., Supp. 1273 (1984).

does not represent evidence that any threat of material injury is real or that actual injury is imminent.

In percentage terms, subject imports increased dramatically from 1992 to 1993. The large percentage increase, however, is the function of the extremely small base and resulted in a market share of only 1.4 percent. Because the increase in market penetration resulted in such a small market share, and because available capacity in the exporting countries is not likely to result in a significant increase in subject imports, I find that any rapid increase in market penetration does not constitute evidence that any threat of material injury is real or that actual injury is imminent.

There were no inventories of subject alloy magnesium in the United States in 1992, and only extremely small inventories in 1993.[11] Given the extremely small amount in 1993, I find that the increase in U.S. inventories is not substantial and does not constitute evidence that any threat of material injury is real or that actual injury is imminent.

In my determination that there is no reasonable indication of material injury by reason of subject imports, I demonstrated that subject imports have had no significant effect on domestic prices. In light of the domestic industry's capacity utilization rate and the availability of nonsubject imports, I find no positive evidence that this will change in the immediate future. Therefore, I conclude that subject imports will not enter the United States at prices that will have a depressing or suppressing effect on domestic prices.

I find no evidence of any other demonstrable adverse trends that indicate the probability that subject imports will be the cause of actual injury. In addition, I find no positive evidence to support a conclusion that the potential for product-shifting represents a threat of material injury that is real or that actual injury is imminent. While the possibility for product shifting may exist, domestic market conditions make it unlikely. First, the demand for magnesium is overwhelmingly concentrated in pure magnesium. Second, there is significant competition among domestic alloy and nonsubject alloy magnesium in the market. In combination, these two factors mitigate the economic incentive for product-shifting from pure magnesium to alloy magnesium.

Finally, I note that an antidumping investigation concerning primary magnesium from Russia, Ukraine and Kazakhstan is now pending in the European Union. Because this investigation has not been concluded, it has not resulted in the "findings or antidumping remedies" required by the statute for consideration in this case.[12] Therefore, the pending investigation does not constitute evidence that any threat of material injury is real or that actual injury is imminent.

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[11] CR at D-7, Table D-3; PR at D-7, Table D-3.

[12] See, 19 U.S.C. § 1677(7)(F)(iii).

For the reasons stated above, I find that there is no reasonable indication that the domestic industry is threatened with material injury by reason of allegedly LTFV imports of alloy magnesium from China and Russia.

PART II

INFORMATION OBTAINED IN THE INVESTIGATIONS

INTRODUCTION

On March 31, 1994, a petition was filed with the U.S. International Trade Commission (Commission) and the U.S. Department of Commerce (Commerce) by Magnesium Corporation of America (Magcorp), Salt Lake City, UT; the International Union of Operating Engineers, Local 564, Freeport, TX; and the United Steelworkers of America, Local 8319, Salt Lake City, UT. The petition alleges that an industry in the United States is materially injured and threatened with material injury by reason of imports of magnesium[1] from the People's Republic of China (China), the Russian Federation (Russia), and Ukraine that are alleged to be sold in the United States at less than fair value (LTFV).

Accordingly, effective March 31, 1994, the Commission instituted preliminary antidumping investigations Nos. 731-TA-696-698 (Preliminary) under section 733(a) of the Tariff Act of 1930[2] (the Act) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of magnesium from China, Russia, and Ukraine alleged to be sold in the United States at LTFV.

Notice of institution of these investigations was posted in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and published in the *Federal Register* of April 12, 1994.[3] Copies of the Commission's and Commerce's *Federal Register* notices are presented in appendix A.

The Commission held a public conference in Washington, DC, on Thursday, April 21, 1994, at which time all interested parties were allowed to present information and data for consideration by the Commission. A list of the participants in the conference is presented in appendix B.

The Commission voted on these investigations on Wednesday, May 11, 1994, and transmitted its determinations to the Secretary of Commerce on Monday, May 16, 1994.

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[1] The products covered by these investigations are pure and alloy magnesium. Pure unwrought magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Alloy unwrought magnesium contains less than 99.8 percent magnesium by weight but 50 percent or more magnesium by weight, with magnesium being the largest metallic element in the alloy by weight, and is sold in various ingot and billet forms and sizes. Products that have the aforementioned primary magnesium content but do not conform to ASTM Specifications or other industry or customer-specific specifications are included in the scope of these investigations. Pure and alloy unwrought magnesium are provided for in subheadings 8104.11.00 and 8104.19.00, respectively, of the *Harmonized Tariff Schedule of the United States (HTS)*. Excluded from the scope of investigation are primary magnesium anodes, granular primary magnesium (including turnings and powder), and secondary magnesium. *See also*, Commerce's scope of investigation in its notice of initiation, 59 F.R. 21748.

[2] 19 U.S.C. § 1671b(a).

[3] 59 F.R. 17399.

PREVIOUS COMMISSION AND OTHER INVESTIGATIONS CONCERNING MAGNESIUM

On August 19, 1992, the Commission determined, pursuant to sections 705(b) and 735(b) of the Act,[4] that an industry in the United States was materially injured by reason of imports from Canada of magnesium that were found by the Department of Commerce to be subsidized by the Governments of Canada and Quebec and to be sold in the United States at less than fair value (LTFV).[5] [6] [7]

On January 6, 1992, the U.S. Department of Labor (Labor) received a petition for trade adjustment assistance filed on behalf of workers producing magnesium at Northwest Alloys, Inc. (Northwest Alloys), Addy, WA. In the petition, Northwest Alloys stated that "primarily USSR exports of magnesium have flooded the world markets at discounted prices." The firm also attached a press release announcing the firm's cutbacks of capacity and personnel. Northwest Alloys explained that its inability to participate in foreign markets was a result of a "large amount of Russian magnesium being dumped in both Europe and Asia at extremely low prices" and that "the oversupply of magnesium in the United States and the continuation of the recession has severely affected the domestic market." In a previous investigation, Labor found that Northwest Alloys' major customers located in Washington, Missouri, and Oregon increased their purchases of imported magnesium while decreasing magnesium purchases from Northwest Alloys during the relevant period. The customers did not identify the country of origin of the imported magnesium.[8]

On February 3, 1994, Magcorp filed a petition for trade adjustment assistance that identified China, Russia, and Ukraine as the reason for employment losses at Magcorp. Labor's investigation is in progress.

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[4] 19 U.S.C. § 1671d(b) and 1673d(b).

[5] U.S. International Trade Commission, *Magnesium From Canada*, investigations Nos. 701-TA-309 and 731-TA-528 (Final), USITC publication 2550, Aug. 1992.

[6] In August 1992, Commerce issued a duty order on imports from Norsk Hydro Canada, Inc., specifically a 31.33 percent antidumping duty and 21.61 percent countervailing duty on pure magnesium, and a 21.61 percent countervailing duty on alloy magnesium.

[7] The Commission also instituted preliminary countervailing duty investigation No. 701-TA-310 (Preliminary) regarding imports of pure and alloy magnesium from Norway; however, Commerce dismissed the countervailing duty petition involving Norway and the Commission accordingly terminated its investigation. *See*, 56 F.R. 54887).

[8] Telephone conversation on July 22, 1992, with Marvin M. Fooks, Director of the Office of Trade Adjustment Assistance, Employment and Training Administration, Department of Labor. Although Northwest Alloys' customers did not identify to Labor the country of origin of their U.S. magnesium imports, note that in 1991, Norsk Hydro Canada accounted for the great bulk of total U.S. imports of magnesium.

THE PRODUCTS

Description and Uses

Magnesium is the eighth most abundant element in the earth's crust and the third most plentiful element dissolved in seawater. Magnesium metal,[9] the lightest of all structural metals, is a silver-white metallic element with a density approximately 63 percent that of aluminum, the principal metal with which it competes in the U.S. market.[10] Magnesium's light weight and high vibrational-dampening properties have encouraged research to develop alloys with improved physical and mechanical properties to enable magnesium's use as a structural metal wherever minimizing weight is an important consideration.

Primary Magnesium

Two types of primary magnesium are sold: pure magnesium and alloy magnesium. Pure magnesium can be further divided into commodity-grade and ultrapure grade. Pure magnesium is unwrought magnesium that contains at least 99.8 percent magnesium by weight; commodity-grade pure magnesium contains at least 99.8 percent magnesium but less than 99.95 percent magnesium by weight, and ultrapure magnesium contains at least 99.95 percent magnesium by weight. Alloy magnesium (or magnesium alloy) is an alloy consisting of pure magnesium and other metals, typically aluminum and zinc, containing less than 99.8 percent magnesium by weight, with magnesium being the largest metallic element in the alloy by weight.

Both pure magnesium and alloy magnesium contain at least 90 percent magnesium, and they are packaged, handled, and shipped following the same regulations and requirements. However, pure magnesium and alloy magnesium differ in a number of physical characteristics and properties. As previously mentioned, pure magnesium contains at least 99.8 percent magnesium by weight, while alloy magnesium contains lower

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[9] Magnesium compounds such as caustic-calcined magnesias, magnesium hydroxide, magnesium sulfate, magnesium carbonate, and refractory magnesia are not included in the investigations.

[10] In 1993, about 52 percent of U.S. producers' shipments were to the aluminum industry for use in making aluminum alloys (in which aluminum is the principal metal by weight) to increase the hardness and corrosion resistance of pure aluminum. Such aluminum alloys are used principally in beverage cans; as structural components in automobiles, aircraft, and military vehicles; and as bumpers, wheels, and decorative trim in automobiles. Other important uses for magnesium include magnesium castings and wrought magnesium applications, e.g., in such automotive components as clutch housings, headlamp assemblies, valve and grill covers, and in power tool components such as chain saw and lawn mower housings; the desulfurization of iron and steel; and as reducing agents in nonferrous metals production. A detailed analysis is presented in the section of this report entitled "U.S. Consumption by Market Segments."

concentrations of magnesium, with the most popular grade of alloy (AZ91D) containing approximately 90 percent magnesium and 9 percent aluminum. Alloy magnesium is produced in order that the product can have certain properties such as additional strength, ductility, workability, corrosion resistance, low density, or castability.

Pure magnesium and alloy magnesium essentially serve separate end-use markets. Pure magnesium is typically used in the production of aluminum alloys,[11] in iron and steel desulfurization, as a reducing agent for various nonferrous metals (titanium, zirconium, hafnium, uranium, beryllium), and as anodes. Alloy magnesium is principally used in structural applications, primarily in castings (die, permanent mold, and sand) and extrusions for the automotive industry.[12] Pure magnesium is seldom used for structural applications, because its specific tensile and yield strengths are low.

The customers that purchase pure magnesium are almost always different from those that purchase alloy magnesium. Both pure magnesium and alloy magnesium are typically sold directly to end users, although pure magnesium used for iron and steel desulfurization is subjected to further processing before being consumed by iron and steel mills.

Ultrapure and Commodity-Grade Pure Magnesium

Although the physical appearance of ultrapure and commodity-grade pure magnesium is even more similar than the appearance of pure magnesium compared to alloy magnesium, ultrapure magnesium differs from commodity-grade pure magnesium in that ultrapure magnesium contains no less than 99.95 percent, by weight, of magnesium and is used in specialized applications such as metal reduction for exotic applications, as a reagent in the pharmaceutical and chemical industries, and for the development of newly emerging pharmaceuticals. Ultrapure magnesium can be substituted for commodity-grade magnesium, but such substitution is unlikely because ultrapure magnesium commands a higher selling price. On the other hand, commodity-grade magnesium cannot be used for the applications in which ultrapure magnesium is used.

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[11] In aluminum alloys, aluminum is the principal metal. A major use for aluminum alloys is in beverage cans. Aluminum alloys compete with alloy magnesium in some applications, e.g., in the automotive market.

[12] ***. Affidavit of Lee R. Brown, petitioners' postconference brief, exhibit 1.

Alloy Magnesium

Certain divisions can be made within alloy magnesium. The major types of alloy magnesium include M-1 anode, AZ31, ZK60, AM60, AZ63, MAG-CAL, and AZ91. In addition, AZ91 is further subdivided into different chemistries designated by the letters A, B, C, D, and E. As previously mentioned, the most popular grade of alloy magnesium is AZ91D.

Manufacturing Processes

Pure and Alloy Magnesium

The production of both pure and alloy magnesium involves three major processing steps: production of the "feed" material; magnesium-chlorine separation; and foundry casting. These processing steps vary from manufacturer to manufacturer, but the end products within pure magnesium and within alloy magnesium are virtually identical.

Most of the world's magnesium comes from magnesium-bearing ores (dolomite,[13] magnesite, brucite, and olivine), seawater,[14] and well and lake brines.[15] In the United States, Dow Magnesium (Dow), the largest producer, uses seawater from the Gulf of Mexico and adds dolime[16] in order to produce pure and alloy magnesium. Magcorp uses brines from underground evaporite deposits in the Great Salt Lake in Utah. A third U.S. producer, Northwest Alloys, uses dolime plus ferrosilicon and aluminum.

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[13] Large deposits of dolomite are distributed throughout the world, and dolomite is the principal magnesium-bearing ore found in the United States. Open-pit methods are used to mine magnesium-bearing ores, and primary crushing of magnesium ores is usually done near the site of the mine. The rock is loaded onto trucks and hauled to crushers that reduce it to approximately 6-inch size. The magnesium content of magnesium-bearing ores typically ranges from nearly 22 percent for dolomite up to 69 percent for brucite.

[14] The magnesium content of seawater is 0.13 percent, which is lower than that of the lowest grade of magnesium ore deposits. However, seawater has the advantage that it may be mined at economically favorable locations and it offers extreme uniformity of magnesium content, allowing easier standardization of the refining process.

[15] Brines are water-based solutions containing dissolved magnesium salts.

[16] Dolime, a calcinated form of dolomite (calcium and magnesium carbonates), is used to raise the PH level of the brine.

No matter which raw materials are used, all of the above processes produce a "feed stock" of either anhydrous (dry) or hydrous (wet) magnesium chloride,[17] which needs to be further processed by separating the chemically-bound chlorine and magnesium. This separation can be accomplished in either of two different ways—by an electrolytic process or a silicothermic process. Magcorp and Dow use the electrolytic process. Northwest Alloys uses the silicothermic process.

In the electrolytic process, either hydrous or anhydrous magnesium chloride can be used as cell feed material, depending on the type of cells used. The hydrous or anhydrous magnesium chloride is fed to an electrolytic cell containing molten magnesium chloride and operating at 700 degrees Celsius.[18] Direct electrical current is then sent through the cells to break down the magnesium chloride into chlorine and molten magnesium. The metal rises to the surface of the bath where it is guided into storage wells and cast into ingots.

In the silicothermic process, dolime (calcined dolomite), ferrosilicon, and aluminum are ground, heated, and briquetted. The briquets are charged into heated tubular retorts that operate under vacuum. Magnesia in the calcined dolomite is reduced by the silicon, producing magnesium vapor, which is crystallized in a condensing chamber, melted, and ladled into casting forms.

These production processes produce large amounts of highly toxic chlorinated compounds such as chlorine gas, hydrochloric acid, dioxins, and furans, which must be carefully monitored, handled, and either recycled or otherwise disposed of. A major cost of operations is the handling of these toxic byproducts.[19]

Pure magnesium and alloy magnesium are typically cast into ingots, billets, rounds, or T-bar shapes weighing between 15 and 300 kgs. Aluminum producers typically purchase larger cast shapes such as rounds, billets, or peg-lock ingots. Diecasters typically purchase smaller size ingots for small-batch remelting. Steel desulfurizers typically purchase smaller ingots, which they grind up, or they purchase magnesium powder or pellets. An illustration of typical cast shapes of magnesium ingots is presented in figure 1.

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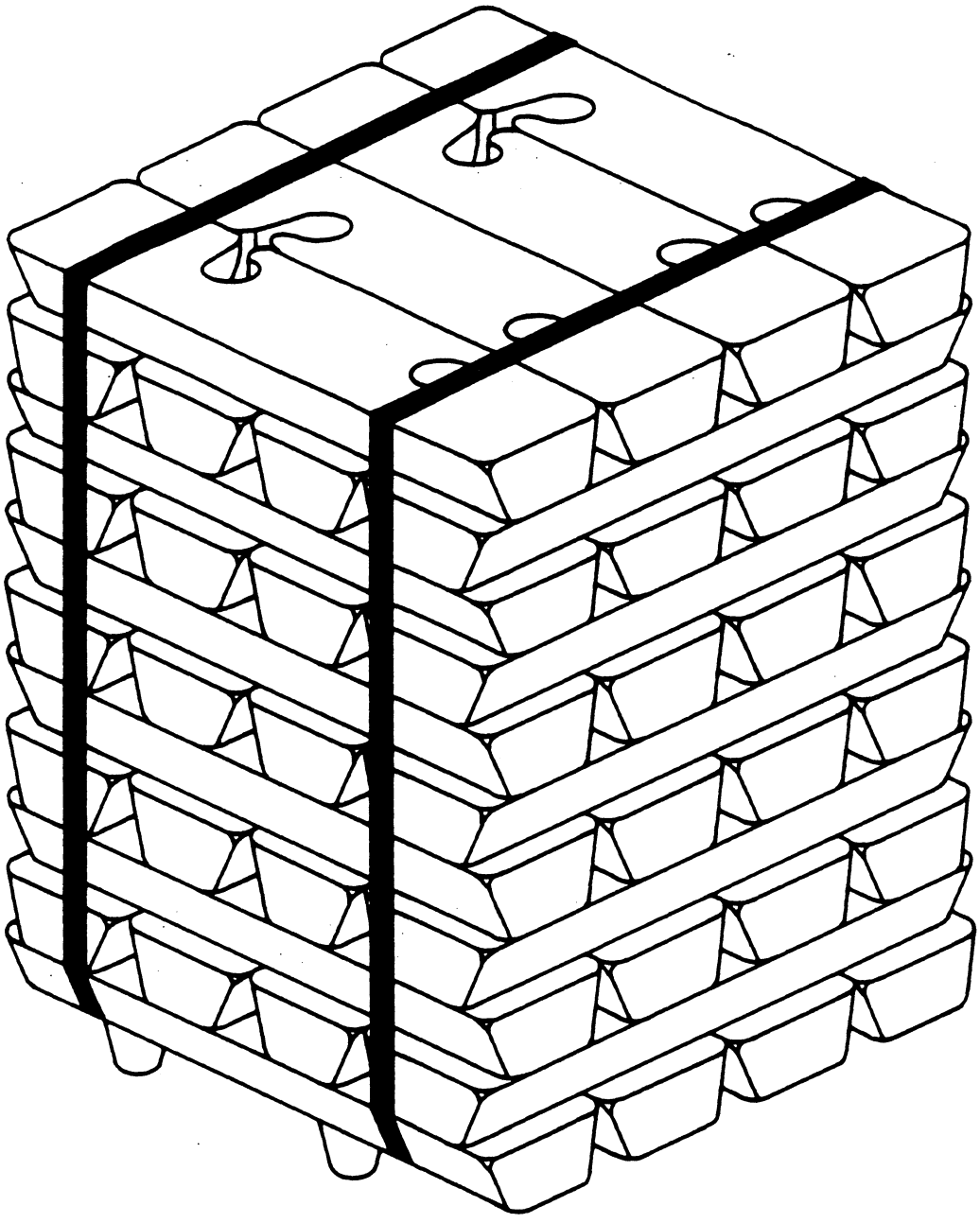
[17] Hydrous magnesium chloride is produced by reacting dolomite with seawater to precipitate dissolved magnesium as magnesium hydroxide; the magnesium hydroxide is then neutralized with hydrochloric acid to produce magnesium chloride. Anhydrous magnesium chloride is produced by concentrating and treating brine with calcium chloride to remove certain impurities; the resulting material is further concentrated and dehydrated in a dryer to yield magnesium chloride powder, which is then melted and purified to produce cell feed material.

[18] Electrolytic cells differ by company and are based on proprietary technologies. Electrolytic cell designs and even the number of cells used are closely guarded secrets; therefore, little information is usually disclosed regarding cell designs.

[19] In June 1990, a chlorine reduction burner was installed on one of Magcorp's emission stacks and reduced the plant's chlorine emissions by 40 percent.

Figure 1
Illustration of typical cast shape of magnesium ingots



Source: Northwest Alloys.

Until the electrolytic or silicothermic reduction of magnesium is completed, the manufacturing processes used for the production of both pure and alloy magnesium are identical.[20] [21] In those facilities which produce both pure magnesium and alloy magnesium, the same production workers tend to work on both lines.[22]

Magcorp uses ***. Its production process inherently produces pure magnesium. In order to produce magnesium alloys or ultrapure magnesium, the pure magnesium must endure a further step, the placing of liquid magnesium into special furnaces and either adding alloying elements to produce magnesium alloys or further processing in order to extract certain impurities to produce higher purity magnesium. Dow uses a very similar process. Dow, however, has ***. ***. ***.

The cost of producing alloy magnesium is slightly higher than the cost of producing pure magnesium because of the cost of purchasing aluminum ingot for alloying and any extra processing costs. This cost will vary as the price of aluminum varies.

Ultrapure magnesium has characteristics identical to commodity-grade pure magnesium, with the exception that ultrapure magnesium must undergo an additional processing step, if produced in an electrolytic process, in order to extract impurities, thereby raising its magnesium content to at least 99.95 percent. Ultrapure magnesium in ingot form can be substituted for commodity-grade pure magnesium in most applications. However, this type of substitution is unlikely because ultrapure magnesium is typically more expensive than commodity-grade pure magnesium. Commodity-grade pure magnesium is not substitutable for ultrapure magnesium because of the higher levels of impurities.

The Commission, in its questionnaire mailed to magnesium producers, asked each firm whether it produced products other than primary magnesium on the same equipment and machinery used in the production of primary magnesium. Dow, Magcorp, and Northwest Alloys indicated that they do not produce products other than primary magnesium on the same equipment and machinery used in the production of primary magnesium.

Dow and Magcorp indicated that they produce pure and alloy magnesium on the same equipment and machinery. Alterations to switch between commodity-grade pure and ultrapure magnesium grades involve metal scheduling, use of specific fluxing agents, and minor procedural changes. Alterations to switch between pure magnesium and alloy magnesium in almost all cases simply involves moving from one casting line to another and metal scheduling changes. Dow and Magcorp indicated that production capabilities for

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[20] Alloy magnesium and pure magnesium typically have common manufacturing facilities and production employees. However, in order to produce alloy magnesium, additional processing equipment and labor are necessary.

[21] ***. Magcorp's questionnaire response.

[22] ***.

commodity-grade pure magnesium, ultrapure magnesium, and alloy magnesium are allocated based on actual or estimated demand for each type of product.[23]

* * * * * * *

Secondary Magnesium

Secondary magnesium is magnesium recovered from secondary sources such as old and new scrap and recycling.[24] The bulk of secondary magnesium is consumed by the aluminum can recycling industry,[25] and some secondary magnesium is sold on the open market.

In its preliminary investigations on magnesium from Canada and Norway, the Commission also collected data on secondary magnesium. None of the secondary magnesium producers indicated that they produced primary magnesium.[26] Likewise, none of the producers of pure and alloy magnesium (primary magnesium) indicated that they produced secondary magnesium. The Commission determined that secondary magnesium was not "like" the imported primary magnesium subject to those investigations.[27]

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[23] Regarding conversion to ultrapure magnesium production, *** noted that with extended processing, it would be possible to produce ultrapure magnesium on the same machinery and equipment that it uses to produce commodity-grade pure magnesium.

[24] Old scrap is magnesium that has been used in end products and is collected for metal recovery after the products are worn out or discarded. New scrap, generated in fabricating operations such as alloying, forging, casting, and machining, consists of clippings, turnings, borings, skimmings, slags, and drosses. U.S. Bureau of Mines, *Mineral Facts and Problems, 1985 Edition,* Bulletin 675, Magnesium chapter, pp. 6-7.

[25] Aluminum recyclers account for the vast majority of magnesium recovery. Approximately 85 percent of the magnesium recovered from scrap is from aluminum-based alloyed products such as recycled two-piece beverage cans. These recyclers, however, do not separate the magnesium from the aluminum and sell the magnesium on the open market; rather, they reuse the magnesium with the aluminum to produce new two-piece beverage cans, or other aluminum alloy products.

[26] Secondary magnesium producers purchase magnesium scrap and produce cast shapes such as ingots, slabs, and anodes essentially by remelting the scrap. These secondary products are then sold to many of the same firms that purchase primary magnesium, in particular the aluminum industries and diecasters. The chemistry of secondary and primary magnesium is similar; however, there is the potential for higher impurity levels in the secondary material. Purchasers who are sensitive to impurity levels tend to purchase only primary magnesium.

[27] U.S. International Trade Commission, *Magnesium from Canada and Norway,* investigations Nos. 701-TA-309 and 731-TA-528 and 529 (Preliminary), USITC Pub. 2442, Oct. 1991, p. I-7, n. 7.

Substitute Products

Greater competition exists regarding substitute products in the alloy magnesium markets than in the pure magnesium markets, and there are important factors other than price and availability that determine the substitutability of products for magnesium. In the aluminum industry, there is no substitute for magnesium. However, in steel and iron desulfurization, secondary magnesium may be used. In addition, calcium chloride may also be substituted; however, sunk capital costs, environmental concerns, service structures, and corporate policies may affect the decision to substitute calcium chloride for magnesium.

In alloy magnesium applications, aluminum, zinc, and even plastics can be substituted in many diecasting applications where alloy magnesium may be used. For example, diecasters that produce automobile parts such as engine valve covers, transmission casings, instrument panel support brackets, and mirror housings must consider not only meeting necessary technical specifications, but also the total delivered cost of their product (including machining and finishing costs) to automobile manufacturers.

In producing titanium metal by reducing titanium tetrachloride, sodium may be used rather than magnesium. Rare-earth elements, such as cerium, can be used in the production of nodular iron, and calcium carbide and calcium carbonate are used for iron desulfurization. In cathodic protection in pipelines, alloys of aluminum and zinc may be substituted for alloy magnesium. Alumina, chromite, and kyanite may be used in place of magnesia[28] in some refractory applications.[29]

U.S. Tariff Treatment

Imports of pure unwrought magnesium and alloy unwrought magnesium are classified in *HTS* subheadings 8104.11.00 and 8104.19.00, respectively. Rates of duty for these *HTS* subheadings are presented in table 1. Where eligibility for special tariff treatment is not claimed or established, goods are dutiable at general most-favored-nation (MFN) rates.

Imports from China were dutiable at MFN rates during 1991-93. Imports from Russia and Ukraine became dutiable at MFN rates as of June 17, 1992, and June 23, 1992, respectively. Prior to this time, these imports were subject to the column 2 rates of duty.

[28] Magnesia are magnesium compounds, not magnesium metal.

[29] U.S. Bureau of Mines, *Mineral Facts and Problems*, Bulletin 675.

Table 1
Primary magnesium: U.S. import duties for pure magnesium[1] (HTS subheading 8104.11.00) and alloy magnesium[2] (HTS subheading 8104.19.00), 1994

Subheading/eligibility status	*Duty column*	*Rate of duty*
		(Percent ad valorem)
Pure magnesium (HTS subheading 8104.11.00):		
MFN countries[3]	Col. 1—General	8.0
Other special rate countries:		
Canada[4]	Col. 1—Special	4.0
Mexico[4]	Col. 1—Special	Free
GSP[5]	Col. 1—Special	Free
CBERA[6]	Col. 1—Special	Free
Israel[7]	Col. 1—Special	Free
ATPA[8]	Col. 1—Special	Free
Others[9]	Col. 2	100.0
Alloy magnesium (HTS subheading 8104.19.00):		
MFN countries[3]	Col. 1—General	6.5
Other special rate countries:		
Canada[4]	Col. 1—Special	3.2
Mexico[4]	Col. 1—Special	5.2
CBERA countries[6]	Col. 1—Special	Free
Israel[7]	Col. 1—Special	Free
ATPA[8]	Col. 1—Special	Free
Others[9]	Col. 2	60.5

[1] Unwrought magnesium containing at least 99.8 percent by weight of magnesium.
[2] Unwrought magnesium containing less than 99.8 percent by weight of magnesium with magnesium being the largest metallic element present in the alloy.
[3] Countries eligible for most-favored-nation tariff treatment.
[4] Imports are subject to requirements of the North American Free Trade Agreement (NAFTA).
[5] Countries eligible for special tariff treatment under the Generalized System of Preferences (GSP).
[6] Countries eligible for special tariff treatment under the Caribbean Basin Economic Recovery Act (CBERA).
[7] Imports are subject to provisions in the United States-Israel Free Trade Area.
[8] Countries eligible for special tariff treatment under the Andean Trade Preference Act (ATPA).
[9] Communist countries and areas enumerated in general note 3(b) to the HTS.

Source: *Harmonized Tariff Schedule of the United States (1994).*

Pure Magnesium

The column 1 general rate of duty for *HTS* subheading 8104.11.00 is 8.0 percent ad valorem. The column 2 rate of duty is 100 percent ad valorem.

Alloy Magnesium

The column 1 general rate of duty for *HTS* subheading 8104.19.00 is 6.5 percent ad valorem. The column 2 rate of duty is 60.5 percent ad valorem.

THE NATURE AND EXTENT OF ALLEGED SALES AT LTFV

On April 26, 1994, Commerce published in the *Federal Register* its notice of initiation of antidumping duty investigations concerning pure and alloy magnesium from China, Russia, and Ukraine.[30] A copy of Commerce's notice is presented in appendix A. Commerce is scheduled to make its preliminary determinations in these investigations on or before September 7, 1994.

Based on a comparison of the United States Price and the Foreign Market Value, petitioners' alleged dumping margins, as corrected by Commerce for methodological errors and/or unsupported data, are presented in table 2.

THE DOMESTIC MARKET

The period for which data were collected in these investigations is from January 1991 through December 1993.[31] U.S. trade data were compiled from questionnaires of the Commission. Import data were compiled using official statistics of Commerce, except as noted. The Commission received responses from all three U.S. producers. The Commission received 16 responses to the importers' questionnaire representing approximately 80 percent of the subject U.S. imports during 1991-93. Data in the body of this report are generally presented for primary magnesium only. A breakout of data by pure and alloy magnesium is presented in appendix C. Summary data on primary magnesium are presented in appendix D.

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[30] 59 F.R. 21748.

[31] The data obtained in response to the Commission's questionnaires are for magnesium on a "gross weight" basis, not a "contained weight" basis.

Table 2
Primary magnesium: Alleged dumping margins for China, Russia, and Ukraine[1]

Product/source	*Margin range*
	(Percent ad valorem)
Pure magnesium:	
China	75.67 to 92.01
Russia	43.37 to 64.12
Ukraine	40.15 to 53.99
Alloy magnesium:	
China	46.14 to 47.44
Russia	48.49 to 107.89
Ukraine	21.10

[1] All manufacturers, producers, and exporters of pure and alloy magnesium in each respective country.

Source: 59 F.R. 21748, Apr. 26, 1994.

Apparent U.S. Consumption

The United States is by far the world's largest market for primary magnesium. Data for apparent U.S. consumption of primary magnesium are presented in table 3 and figure 2.[32] [33] Apparent U.S. consumption of primary magnesium increased by 8.2 percent from 1991 to 1992 and increased by 3.8 percent from 1992 to 1993.

U.S. Consumption by Market Segments

Table 4 and figures 3 and 4 present U.S. producers' shipments and U.S. importers' shipments, by products and end users for 1991-93. As indicated in the table, commodity-grade pure magnesium is by far the principal type of magnesium shipped to the U.S. market by U.S. producers and U.S. importers, and shipments to aluminum producers constitute the largest submarket.[34]

[32] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultrapure and commodity-grade pure magnesium from "other sources" have been classified as commodity-grade pure magnesium, possibly understating imports of ultrapure magnesium from "other sources."

[33] Apparent U.S. consumption, by types of magnesium, is presented in app. C.

[34] Importers were asked to provide data on shipments by product categories to end users. However, only a few importers provided usable data.

Table 3
Primary magnesium: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, 1991-93

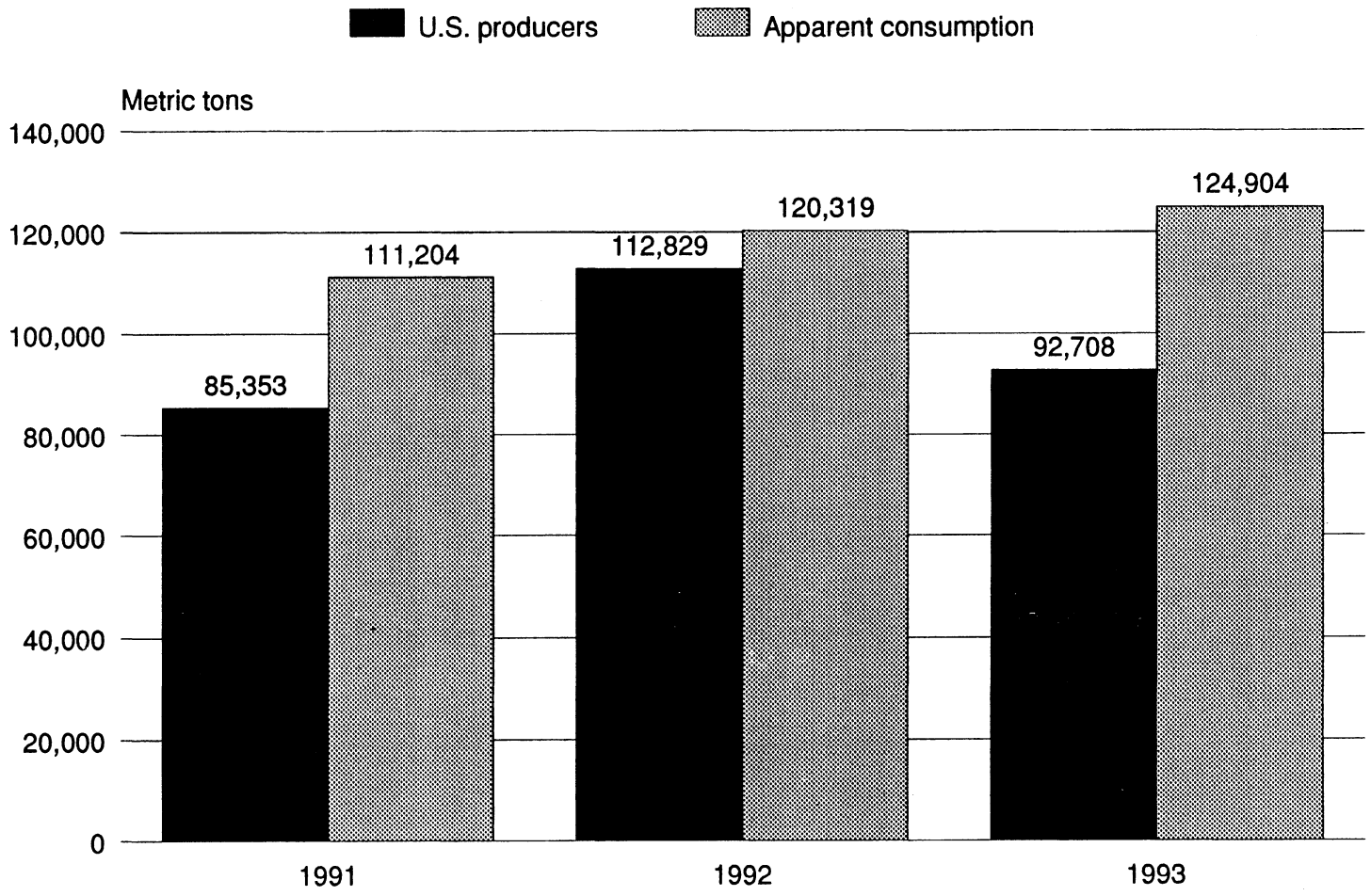
(Metric tons)

Item	*1991*	*1992*	*1993*
Producers' U.S. shipments[1]	85,353	112,829	92,708
U.S. imports from:[2]			
China	0	466	2,071
Russia	0	1,930	17,443
Ukraine	0	692	4,240
Subtotal	0	3,089	23,754
All other sources	25,851	4,402	8,442
Total	25,851	7,490	32,196
Apparent U.S. consumption	111,204	120,319	124,904

[1] U.S. shipments include company transfers and domestic shipments.
[2] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultrapure and commodity-grade pure magnesium are classified as "pure" magnesium, while imports of off-specification pure magnesium and of alloy magnesium are classified as "alloy" magnesium.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and official statistics of the U.S. Department of Commerce.

Figure 2
Primary magnesium: U.S. producers' shipments and apparent U.S. consumption, by sources, 1991-93



Source: Table 3.

Table 4
Primary magnesium: U.S. producers' shipments and U.S. importers' shipments,[1] by products and by end users, 1991-93[2]

(Metric tons)

Item	1991		1992		1993	
	Producers	Importers	Producers	Importers	Producers	Importers
Ultrapure magnesium:						
Aluminum producers	***	***	***	***	***	***
Diecasters	***	***	***	***	***	***
Steel desulfurizers	***	***	***	***	***	***
Other[3]	***	***	***	***	***	***
Total	***	***	***	***	***	***
Commodity-grade						
Aluminum producers	***	***	***	***	***	***
Diecasters	***	***	***	***	***	***
Steel desulfurizers	***	***	***	***	***	***
Other[3]	***	***	***	***	***	***
Total	***	***	***	***	***	***
Alloy magnesium:[4]						
Aluminum producers	***	***	***	***	***	***
Diecasters	***	***	***	***	***	***
Steel desulfurizers	***	***	***	***	***	***
Other[3]	***	***	***	***	***	***
Total	***	***	***	***	***	***
Total, all magnesium:						
Aluminum producers	47,793	0	53,081	521	46,590	9,116
Diecasters	***	0	***	36	***	208
Steel desulfurizers	11,693	0	19,673	34	14,550	1,867
Other[3]	***	0	***	85	***	7,538
Total	83,456	0	110,845	676	90,408	18,729

[1] Includes imports from China, Russia, and Ukraine only. Few importers reported shipment data by products and end users.

[2] The data provided in this table differ from producers' U.S. shipments in table 3 because of reporting differences by producers.

[3] Metal reduction, wrought products, granules and grignard production.

[4] According to official statistics, imports classified as "alloy" totaled 1,744 metric tons in 1993. The data presented for imports of alloy by U.S. importers represent only *** percent of these imports.

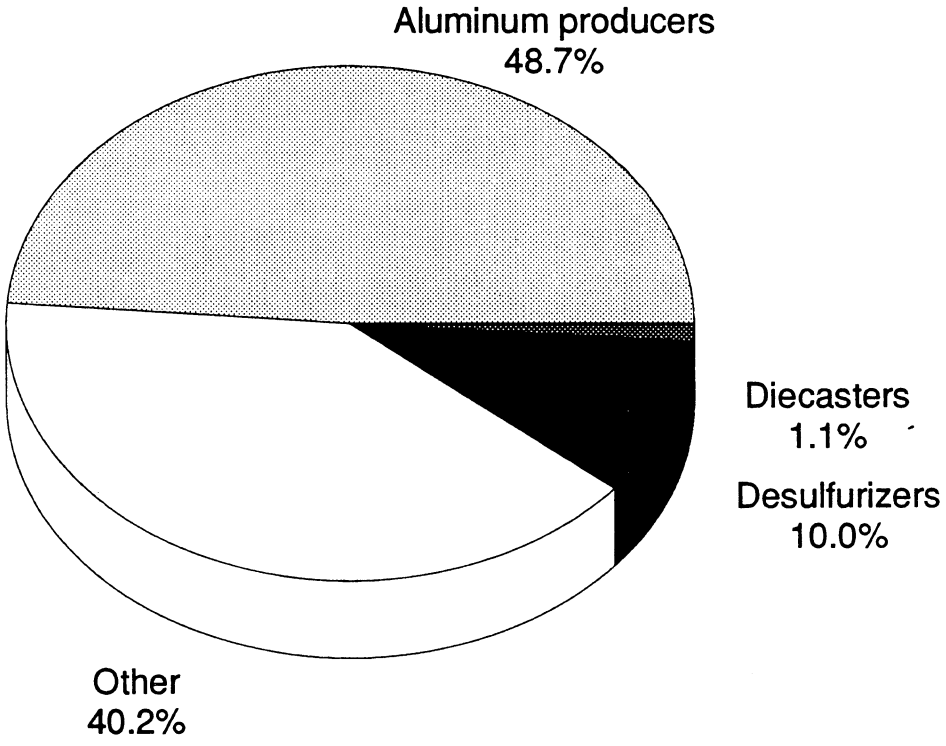
Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Figure 3
Primary magnesium: U.S. producers' shipments, by end users, 1993

* * * * * * *

Source: Table 4.

Figure 4
Primary magnesium: U.S. importers' shipments, by end users, 1993



Source: Table 4.

U.S. Producers

There are three producers of primary magnesium in the United States. The Commission received questionnaire responses from all three producers. The names of these producers, the location of their manufacturing facilities, the raw material used at each facility, and the position each firm has taken with respect to the petition are presented in table 5. U.S. production accounted for by each producer, by products, during 1991-93 is presented in table 6.

Table 5
Primary magnesium: U.S. producers, plant locations, raw materials, and positions taken with respect to the petition

Product/company	*Plant location*	*Raw material*	*Production Process*	*Position taken with respect to the petition*
Dow	Freeport, TX	Seawater & dolomite	Electrolysis	***
Magcorp	Rowley, UT	Lake brines	Electrolysis	Petitioner
Northwest Alloys . . .	Addy, WA	Dolomite	Silicothermic	***

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

Magcorp

Magcorp, the petitioner, has corporate offices in Salt Lake City, UT, and a production facility in Rowley, UT, approximately 40 miles west of Salt Lake City on the southern shore of the Great Salt Lake. Magcorp is a wholly owned subsidiary of the Renco Group of New York, NY. The Renco Group purchased the Rowley plant in August 1989 from AMAX Magnesium.

Magcorp accounted for *** percent of U.S. production in 1991, *** percent in 1992, and *** percent in 1993. Magcorp produces a variety of magnesium products, including pure magnesium ranging from 99.8 to 99.95 percent magnesium, by weight, and a series of alloy magnesium products.

Table 6
Primary magnesium: U.S. production, by products and companies, 1991-93

(Metric tons)

Item	*1991*	*1992*	*1993*
Ultrapure magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	***	***	***
Commodity-grade pure magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	***	***	***
Alloy magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	***	***	***
Total magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	133,341	137,683	129,956

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

Dow

Dow Chemical Company,[35] Midland, MI, is the largest producer of magnesium in the United States, accounting for *** percent of U.S. production in 1991, *** percent in 1992, and *** percent in 1993. Its magnesium operations are located in Freeport, TX, on the Gulf Coast.[36] Dow began production of magnesium in 1941 and was the first commercial magnesium producer in the United States. Dow has been the largest U.S. magnesium producer in the United States for the last 50 years. Dow produces a variety of magnesium products, including pure magnesium ranging from 99.8 percent to 99.95 percent magnesium, by weight, and a series of alloy magnesium products.[37]

Northwest Alloys

Northwest Alloys, a U.S. producer,[38] is a wholly owned subsidiary of Aluminum Company of America (Alcoa) and accounted for *** percent of U.S. production in 1991, *** percent in 1992, and *** percent in 1993. Northwest Alloys produces only pure magnesium products, with the majority of its production transferred to Alcoa's aluminum-smelting facilities. Company transfers accounted for *** percent of the company's total shipments in 1991, *** percent in 1992, and *** percent in 1993. Open market transactions accounted for *** percent of the company's total shipments in 1991, *** percent in 1992, and *** percent in 1993.

U.S. Producers' Purchases

***. *** did not purchase domestically produced magnesium during this period.[39]

U.S. Importers

Questionnaires were mailed to 27 companies believed to be importing magnesium from the subject countries. The Commission received responses from 16 importers representing approximately 80 percent of U.S. imports when compared with official import statistics. ***.[40] Dow, however, ***.[41]

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[35] ***.

[36] Dow maintains production facilities in Freeport, TX, producing some 400 chemicals. Its facilities are referred to as the world's largest chemical complex.

[37] ***.

[38] Northwest Alloys indicated in its questionnaire response that it ***.

[39] ***.

[40] According to Northwest Alloys' questionnaire response, ***. Ackerson & Bishop

(continued...)

Channels of Distribution

Table 7 presents U.S. producers' and U.S. importers' U.S. shipments to distributors and end users in 1993. The overwhelming majority of these shipments of magnesium were made to unrelated end users. In 1993, U.S. producers shipped 73.9 percent of their shipments of primary magnesium to unrelated end users, 25.3 percent to related end users, and 0.9 percent to unrelated distributors. No shipments were made to related distributors. In 1993, U.S. importers shipped 70.7 percent of their shipments of primary magnesium to unrelated end users, 19.4 percent to related distributors, 9.5 percent to unrelated distributors, and 0.5 percent to related end users.

Table 7
Primary magnesium: U.S. producers' and U.S. importers' shipments[1] to distributors and end users, by products, 1993

(Metric tons)

	Distributors		*End users*	
Product category	*Related*	*Unrelated*	*Related*	*Unrelated*
U.S. producers:				
Ultrapure magnesium	***	***	***	***
Commodity-grade pure magnesium	***	***	***	***
Alloy magnesium	***	***	***	***
Total, all magnesium	0	788	22,851	66,770
U.S. importers':				
Ultrapure magnesium	***	***	***	***
Commodity-grade pure magnesium	***	***	***	***
Alloy magnesium	***	***	***	***
Total, all magnesium	3,727	1,824	87	13,589

[1] The data provided in this table differ from producers' U.S. shipments in table 3 because of reporting differences by producers. Also, importers' U.S. shipments data reported herein are incomplete.

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

[40] (...continued)
postconference brief, app. 3.

[41] ***.

GLOBAL CAPACITY AND PRODUCTION

There are presently at least 21 manufacturing facilities for the production of pure and alloy magnesium throughout the world. There are six magnesium production facilities in North America,[42] one in South America,[43] four in Europe,[44] two in Russia,[45] two in Ukraine,[46] one in Kazakhstan, four in China,[47] and five elsewhere in Asia.[48]

Table 8 and figure 5 present annual world production capacity of magnesium as of December 31, 1992. According to U.S. Bureau of Mines estimates, total world production capacity to produce magnesium was 531,200 metric tons, and total world production was 303,619 metric tons in 1992. The United States accounted for 160,000 metric tons, or 30.1 percent of global capacity in that year, and 136,947 metric tons, or 45.1 percent of world production.[49] China accounted for 9,000 metric tons, or 1.7 percent of global capacity in 1992 and 6,500 metric tons, or 2.1 percent of world production. Russia accounted for 95,000 metric tons, or 17.9 percent of global capacity in 1992, and 40,000 metric tons, or 13.2 percent of world production. Ukraine accounted for 54,000 metric tons, or 10.2 percent of global capacity in 1992, and 10,000 metric tons or 3.3 percent of world production.

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[42] These production facilities are operated by Dow, Magcorp, Northwest Alloys, Norsk Hydro Canada, Timminco (Canada), and MagCan. The MagCan Canadian facility located in the Province of Alberta is presently idle and exported no commercial shipments of pure or alloy magnesium during the period for which data were collected in the investigations.

[43] This production facility is operated by Brasmag Cia Brazil.

[44] These production facilities are operated by Norsk Hydro (Norway), Pechiney (France), Societa Italiano Magnesio (Italy), and Magnohrom (Serbia and Montenegro).

[45] Solikamsk Magnesium Works PLC, Solikamsk, Russia, and AVISMA Titanium-Magnesium Works, Berezniki, Russia.

[46] Concern Chlorvinyl, Kalush, Ukraine, and Zaporozhye Titanium and Magnesium Works, Zaporozhye, Ukraine.

[47] There are four production facilities in China with a combined estimated production capacity of approximately 8,200 metric tons in 1993. These facilities are: MinHe Magnesium Factory (4,000 metric tons); Fushon Aluminum Smelter (3,000); XingXia Metallurgical Works (1,000-3,000 metric tons); and Yinkou Magnesium Works (200 metric tons). Midland Export Ltd. submission dated May 3, 1994.

[48] These production facilities are operated by Ube (Japan), Japan Metals and Chemicals (Japan), Furukawa (Japan), Southern Magnesium and Chemicals (India), and Tamil Nadu Magnesium and Marine Chemicals (India). The Furukawa plant is presently idle. Details on this facility are not available from the U.S. Bureau of Mines.

[49] The U.S. Bureau of Mines data differ from data submitted in response to questionnaires of the Commission.

Table 8
Primary magnesium: Estimated world annual production capacity and production,[1] by sources, as of Dec. 31, 1992

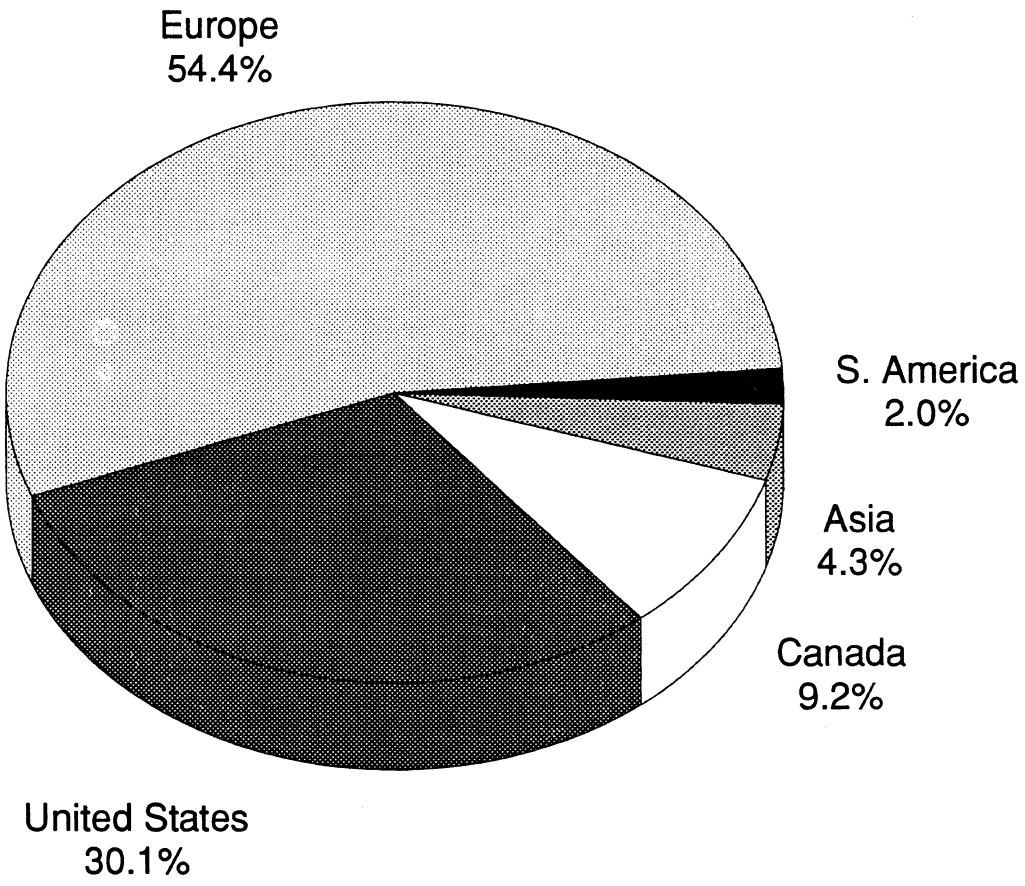
(Metric tons)

Continent/country	*Capacity[2]*	*Production*
North America:		
Canada	49,000	25,700
United States	160,000	136,947
Subtotal	209,000	162,647
South America (Brazil)	10,600	7,300
Europe:		
France	17,000	12,000
Italy	10,000	3,000
Kazakhstan[3]	65,000	20,000
Norway	41,000	30,404
Russia[3]	95,000	40,000
Serbia and Montenegro	7,000	4,000
Ukraine[3]	54,000	10,000
Subtotal	289,000	119,404
Asia:		
China	9,000	6,500
India	600	(4)
Japan	13,000	7,768
Subtotal	22,600	14,268
World total	531,200	303,619

[1] Includes capacity at operating plants as well as at plants on standby basis. Data of the U.S. Bureau of Mines for the United States, China, Russia, and Ukraine may differ from data submitted in response to questionnaires of the U.S. International Trade Commission.
[2] In 1993, magnesium production capacity was completely shut down in Italy and Serbia and Montenegro. Production capacity in Japan was reduced to 8,300 metric tons in 1993. For all other countries, production capacity was the same in 1993 as it was in 1992.
[3] Includes magnesium production capacity that is used exclusively for titanium production as follows: Kazakhstan, 40,000 metric tons; Russia, 35,000 metric tons; and Ukraine, 15,000 metric tons.
[4] Not available.

Source: U.S. Bureau of Mines.

Figure 5
Primary magnesium: Estimated world annual capacity, as of December 31, 1992



Source: Table 8.

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

U.S. Capacity, Production, and Capacity Utilization

The Commission requested U.S. primary magnesium producers to provide data on their average-of-period and end-of-period practical capacity, production, and capacity utilization for 1991-93. Aggregated data provided by all three U.S. producers of primary magnesium are presented in table 9.[50] Because both pure and alloy magnesium are typically produced on the same plant and equipment and utilize the same workers, ***.

Reported annual average-of-period capacity for the U.S. industry was stable throughout 1991-93. Production of primary magnesium increased by 3.3 percent from 1991 to 1992 but decreased by 5.6 percent from 1992 to 1993.[51] Average-of-period capacity utilization was 81.0 percent in 1991, 83.6 percent in 1992, and 78.9 percent in 1993.

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[50] The Commission defined capacity or full production capability as the maximum level of production that an establishment could reasonably expect to attain under normal operating conditions. In estimating full production capability, the following were to be taken into consideration:

- Assume that only the machinery and equipment in place and ready to operate will be utilized. Do not consider facilities or equipment that would require extensive reconditioning before they can be made operable.
- Assume normal downtime, maintenance, repair, and cleanup.
- Do not assume number of shifts and hours of plant operations under normal conditions to be higher than that attained by your plant any time during the past 5 years.
- Do not consider overtime pay, availability of labor, materials, utilities, etc., to be limiting factors.
- Assume a product mix that was typical or representative of your production during the period. If your plant is subject to considerable short-run variation, assume the product mix of the current period.
- Do not assume increased use of productive facilities outside the plant for services (such as contracting out subassembly work) in excess of the proportion that would be normal during the time periods covered by this questionnaire.

End-of-period capacity was defined as full production capability of a plant(s) to produce for a period of time using the machinery and equipment in place at the end of the period.

Average-of-period capacity was defined as full production capability of a plant(s) to produce for a period of time using the machinery and equipment actually in place during the period. Unless there has been a change in full production capability (e.g., as a result of equipment or plant startup or shutdown) during the period, the end-of-period and average-of-period capabilities should be the same.

[51] Magcorp's initial questionnaire response reported production on a "liquid" basis rather than a finished product "ingot" basis. The data provided for production and company transfers was affected by this discrepancy. Per phone conversation with Kenneth Button, consultant for Magcorp, on April 29, 1994, the Commission received amended data for production and company transfers.

Table 9
Primary magnesium: U.S. producers' production capacity,[1] production, and capacity utilization, 1991-93[2]

Item	1991	1992	1993
	Quantity (metric tons)		
End-of-period production capacity	164,667	164,667	164,667
Average-of-period production capacity	164,667	164,667	164,667
Production	133,341	137,683	129,956
	Capacity utilization (percent)		
End-of-period production capacity	81.0	83.6	78.9
Average-of-period production capacity	81.0	83.6	78.9

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

[2] Data presented are for all types of magnesium combined. Because both pure and alloy magnesium are typically produced on the same plant and equipment and utilize the same workers, only production capacity and capacity utilization for all magnesium products is presented. All firms stated that production capacity for specific types of magnesium is generally allocated based on actual or estimated demand for each type of product.

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

All three companies, Magcorp, Dow, and Northwest Alloys, reported no change in production capacity during 1991-93.[52] Magcorp maintained an annual production capacity for primary magnesium of *** metric tons, Dow maintained an annual production capacity of *** metric tons, and Northwest Alloys maintained an annual production capacity of *** metric tons.

[52] In the autumn of 1993, Dow announced the idling of a portion of its production capacity. ***. Dow's questionnaire response.

U.S. Producers' Shipments

Data for U.S. producers' shipments of primary magnesium are presented in table 10 and figure 6.[53] [54] U.S. producers' shipments, by products and companies, are presented in table 11.

Table 10
Primary magnesium: Shipments of U.S. producers, 1991-93

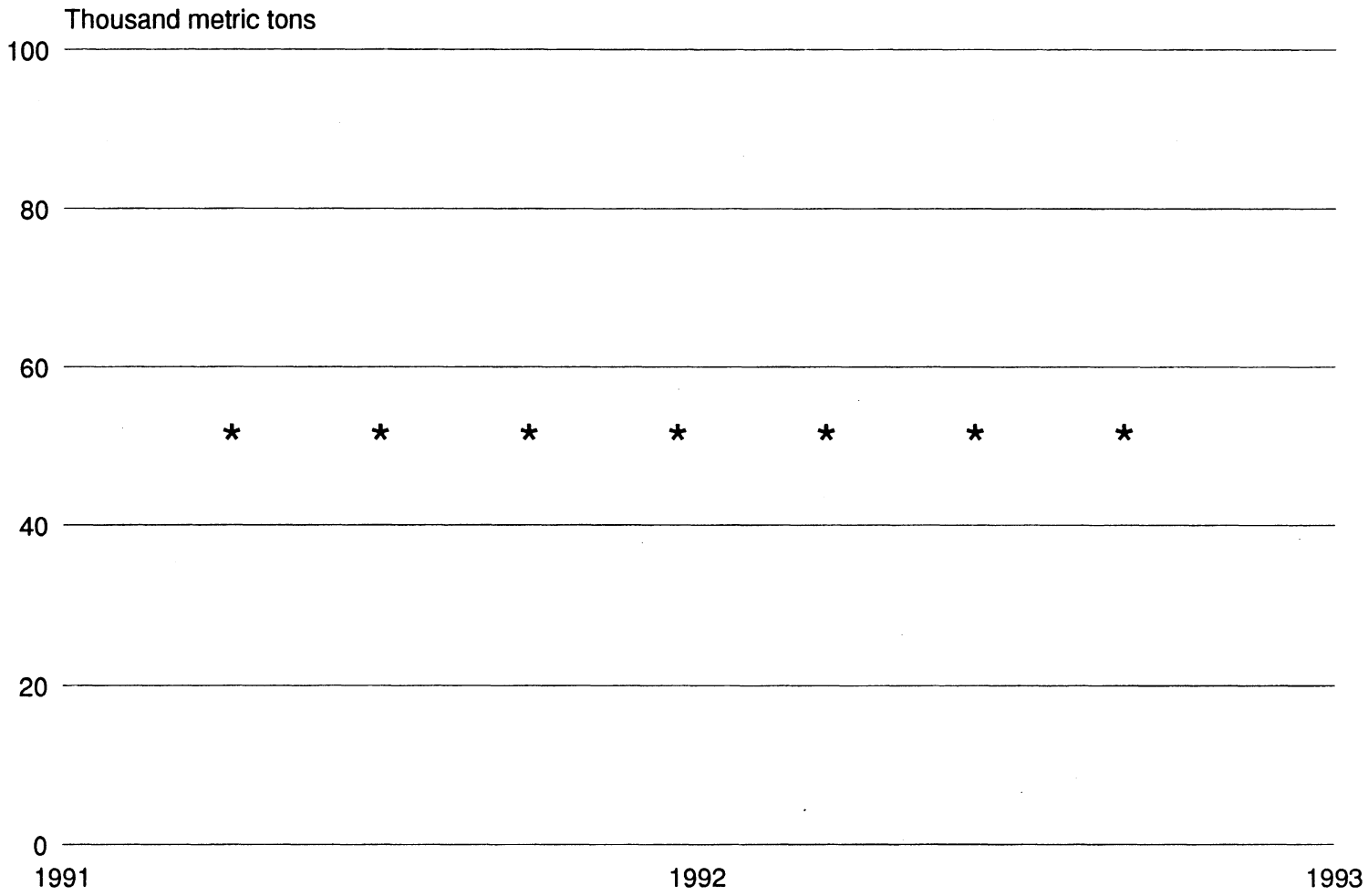
Item	1991	1992	1993
	Quantity (metric tons)		
Company transfers	***	***	***
Domestic shipments	***	***	***
Subtotal, U.S. shipments	85,353	112,829	92,708
Exports	***	***	***
Total	***	***	***
	Value (1,000 dollars)		
Company transfers	***	***	***
Domestic shipments	***	***	***
Subtotal, U.S. shipments	221,847	295,980	278,754
Exports	***	***	***
Total	***	***	***
	Unit Value (per pound)		
Company transfers	***	***	***
Domestic shipments	***	***	***
Average, U.S. shipments	$1.18	$1.19	$1.36
Exports	***	***	***
Average	***	***	***

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

[53] U.S. producers' shipments by products are presented in app. C.

[54] The U.S. producers' aggregate shipment data (quantity and value) presented in table 10 and this report differ from the quantities and values of sales data presented in the section of this report entitled "Financial Experience of U.S. Producers" principally because of ***.

Figure 6
Primary magnesium: Shipments of U.S. producers, by types of shipments, 1991-93



Source: Table 10.

Table 11
Primary magnesium: U.S. producers' U.S. shipments, by products and companies, 1991-93

(Metric tons)

Item	*1991*	*1992*	*1993*
Ultrapure magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	***	***	***
Commodity-grade pure magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	***	***	***
Alloy magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	***	***	***
Total, all magnesium:			
Dow	***	***	***
Magcorp	***	***	***
Northwest Alloys	***	***	***
Total	85,353	112,829	92,708

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

According to data collected from the Commission's questionnaires, U.S. producers' domestic shipments of primary magnesium increased by 46.6 percent in quantity from 1991 to 1992 but decreased by 26.6 percent from 1992 to 1993. The value of U.S. producers' domestic shipments of primary magnesium increased by 50.8 percent from 1991 to 1992 but decreased by 16.2 percent from 1992 to 1993. The unit value of U.S. producers' domestic shipments of primary magnesium increased by 2.6 percent from 1991 to 1992 and increased by 14.2 percent from 1992 to 1993. Intracompany transfers of primary magnesium represented *** percent of U.S. producers' total shipments in 1991, *** percent in 1992, and *** percent in 1993.

U.S. Producers' Export Shipments

Exports shipments accounted for a significant share of total U.S. producers' shipments of primary magnesium during 1991-93. Exports shipments (based on quantity) accounted for *** percent of U.S. producers' total shipments in 1991, *** percent in 1992, and *** percent in 1993. *** was the largest U.S. exporter throughout this period, accounting for *** percent of U.S. exports in 1993. *** exports of primary magnesium accounted for *** percent of its total shipments in 1991, *** percent in 1992, and *** percent in 1993. *** was the second largest exporter. *** exports accounted for *** percent of its total shipments in 1991, *** percent in 1992, and *** percent in 1993. *** had exports that accounted for *** percent of its total shipments in 1991. ***.

U.S. Producers' Inventories

Data for U.S. producers' inventories of primary magnesium are presented in table 12.[55] According to data collected from the Commission's questionnaires, end-of-period inventories of primary magnesium decreased by 60.6 percent from 1991 to 1992 but increased by 102.2 percent from 1992 to 1993.

Table 12
Primary magnesium: U.S. producers' end-of-period inventories, 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
Inventories	22,233	8,752	17,697
	Ratio of total inventories to—(percent)		
Production	16.7	6.4	13.6
U.S. shipments[1]	26.0	7.8	19.1
Total shipments	***	***	***

[1] U.S. shipments equals company transfers plus domestic market shipments.

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

[55] U.S. producers' inventories by types of magnesium are presented in app. C.

U.S. Employment, Wages, Compensation, and Productivity

All companies producing both pure and alloy magnesium reported that the same production workers were used two produce both products. Therefore, no meaningful employment data are available by types of magnesium. U.S. employment, wages, compensation, and productivity are presented in table 13.

Table 13
Average number of production and related workers (PRWs) producing primary magnesium, hours worked,[1] wages and total compensation paid to such employees, hourly wages and total compensation paid, productivity, and unit labor costs, 1991-93[2]

Item	*1991*	*1992*	*1993*
Average number of PRWs	1,652	1,616	1,596
Hours worked *(1,000 hours)*	3,472	3,446	3,390
Wages paid *($1,000)*	52,686	53,238	52,795
Total compensation paid *($1,000)*	70,688	74,247	74,844
Hourly wages paid	$15.17	$15.45	$15.57
Hourly total compensation paid	$20.36	$21.55	$22.08
Productivity *(metric tons per 1,000 hours)*	38.4	40.0	38.3
Unit labor costs[3] *(per metric ton)*	$530.13	$539.26	$575.92

[1] Includes hours worked plus hours of paid leave time.
[2] All three U.S. producers provided complete employment data.
[3] On the basis of total compensation paid.

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

According to data collected from the Commission's questionnaires, the number of production and related workers (PRWs) producing primary magnesium decreased by 2.2 percent from 1991 to 1992 and decreased by 1.2 percent from 1992 to 1993. The number of hours worked by PRWs producing primary magnesium decreased by 0.8 percent from 1991 to 1992 and decreased by 1.6 percent from 1992 to 1993.

Wages paid to PRWs increased by 1.1 percent from 1991 to 1992 but decreased by 0.8 percent from 1992 to 1993. Hourly wages paid to PRWs increased by 1.9 percent from 1991 to 1992 and increased by 0.8 percent from 1992 to 1993.

Total compensation paid to PRWs increased by 5.0 percent from 1991 to 1992 and increased by 0.8 percent from 1992 to 1993. Hourly total compensation paid to PRWs increased by 5.8 percent from 1991 to 1992 and increased by 2.5 percent from 1992 to 1993.

Productivity (metric tons per 1,000 hours) increased by 4.2 percent from 1991 to 1992 but decreased by 4.3 percent from 1992 to 1993. Unit labor costs increased by 1.7 percent from 1991 to 1992 and increased by 6.8 percent from 1992 to 1993.

Magcorp's production employees are members of the United Steelworkers of America, Local 8319. Magcorp employed an average of *** PRWs producing primary magnesium in 1991, *** in 1992, and *** in 1993. In its questionnaire response, ***.

Dow's production employees are members of the International Union of Operating Engineers, Local 564. Dow employed an average of *** PRWs producing primary magnesium in 1991, *** in 1992, and *** in 1993. In its questionnaire response, ***.

Northwest Alloys indicated that its production and related workers are not union affiliated. Northwest Alloys employed an average of *** PRWs producing primary magnesium in 1991, *** in 1992, and *** in 1993. In its questionnaire response, ***.

Financial Experience of U.S. Producers

Dow, Magcorp, and Northwest Alloys, which together accounted for 100 percent of 1993 U.S. production of primary magnesium, provided financial data. Dow and Northwest have fiscal years ending December 31, while Magcorp's ends October 31. However, Magcorp reported its data on a calendar-year basis.

Dow, the major U.S. producer of both pure magnesium and magnesium alloys, accounted for *** of the sales from 1991 to 1993. All of Dow's magnesium is produced at its facilities in Freeport, TX, using seawater from the Gulf of Mexico and dolime as its magnesium source. None is used internally—all of its production is for sales to other parties. However, about *** of all sales were transfers to foreign affiliates for eventual export sale.

Magcorp has one plant, and that plant *** magnesium. Located in Rowley, UT, near Salt Lake City, the plant uses the Great Salt Lake as the source of its magnesium. Through August of 1989, Magcorp was known as AMAX Magnesium Corp., a wholly owned subsidiary of AMAX, Inc. At that time, a small group of individuals purchased the company and renamed it Magcorp. Before the purchase, the company had a fiscal year ending December 31; since then, it has ended October 31.

Northwest Alloys, a subsidiary of Alcoa, exclusively produces magnesium at its sole plant in Addy, WA. Alcoa built the plant in the mid 1970s so its magnesium needs could be

met (magnesium is critical in the production of aluminum cans). However, its need for primary magnesium dropped in the early 1980s when recycling gained widespread popularity. As a result, part of Northwest Alloys' production became excess to Alcoa's needs. In 1993, Alcoa used about *** percent of Northwest Alloys' production of magnesium; the remainder was sold to third parties.

Virtually all overall establishment revenues are from sales of either commodity-grade magnesium, ultrapure magnesium, or alloy magnesium. Therefore, we will refer to such data as primary magnesium operations, instead of establishment operations.

Primary Magnesium Operations

Aggregated data on the primary magnesium operations of the three U.S. producers are presented in table 14.[56] The 1992 results were all up compared to 1991, as *** in net sales and all levels of profitability. At the same time, however, all three producers had ***. Net sales value increased by about 17 percent, the result of an 11-percent increase in net sales quantities and a 5-percent increase in unit sales value. Since the unit cost of goods sold remained at $1.13 per pound, a large portion of the increased net sales flowed through to gross profits. The increased gross profits coupled with decreased selling, general, and administrative (SG&A) expenses (both on an absolute and unit basis) resulted in operating and net losses that were half as large as the previous years'.

Even though net sales declined in 1993, losses became smaller. Sales quantities declined by about 20 percent, ***. On the other hand, the unit sales prices for *** increased by *** per pound, an average of about 16 percent. The consequence of the decreased sales quantities and increased unit sales prices was a $30 million decline in net sales value. Although unit cost of goods sold was up about $0.13 ***, it was less than the $0.18 increase in unit sales value. The result was an increase in both the gross profit margin and gross profits. This increase in gross profits in turn flowed through to succeeding profit levels.

Table 15 presents selected income-and-loss data for each of the three producers. Whereas the trends for *** in 1992 and 1993, *** in 1993. Magcorp's net sales ***. Its unit sales value ***. ***.

Northwest Alloys' results *** to Magcorp's. Net sales ***. The company's ***. While sales to ***. Northwest Alloys generally had ***.[57]

* * * * * * *

[56] Financial data, by types of magnesium, are presented in app. C.

[57] Unlike Dow and Magcorp, Northwest Alloys produces magnesium by the silicothermic process.

Table 14
Income-and-loss experience of U.S. producers[1] on their primary magnesium operations, fiscal years 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
Net sales	138,610	154,035	123,952
	Value (1,000 dollars)		
Net sales	337,393	395,407	364,990
Cost of goods sold	344,138	384,131	344,736
Gross profit or (loss)	(6,745)	11,276	20,254
SG&A expenses	34,440	32,153	31,116
Operating income or (loss)	(41,185)	(20,877)	(10,862)
Interest expense	11,577	10,463	10,380
Other income or (expense), net	(9,033)	1,372	(626)
Net income or (loss) before taxes	(61,795)	(29,968)	(21,868)
Depreciation and amortization	37,605	37,206	29,137
Cash flow[2]	(24,190)	7,238	7,269
	Value (per pound)		
Net Sales	$1.10	$1.16	$1.34
Cost of goods sold	1.13	1.13	1.26
Gross profit or (loss)	(0.02)	0.03	0.07
SG&A expenses	0.11	0.09	0.11
Operating income or (loss)	(0.13)	(0.06)	(0.04)
	Ratio to net sales (percent)		
Cost of goods sold	102.0	97.1	94.5
Gross profit	(2.0)	2.9	5.5
SG&A expenses	10.2	8.1	8.5
Operating income	(12.2)	(5.3)	(3.0)
Net income before taxes	(18.3)	(7.6)	(6.0)
	Number of firms reporting		
Operating losses	***	***	***
Net losses	***	***	***
Data	3	3	3

[1] The producers are Dow, Magcorp, and Northwest Alloys.
[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.

The producers' production costs are shown in table 16. In the aggregate, the costs ***.

Table 15
Income-and-loss experience of U.S. producers on their primary magnesium operations, by companies, fiscal years 1991-93

* * * * * * *

Table 16
Per-unit manufacturing costs of U.S. producers on their operations producing primary magnesium, fiscal years 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
Production	133,339	136,290	127,838
	Cost (per pound)		
Direct materials	$0.24	$0.22	$0.24
Direct labor	0.16	0.16	0.17
Factory overhead:			
Indirect labor	0.03	0.03	0.03
Energy costs	0.23	0.25	0.28
Supplies/maintenance cost	0.25	0.26	0.26
Other	0.26	0.31	0.28
Subtotal	0.78	0.85	0.85
Total costs	1.18	1.24	1.27
	Percent of total cost		
Direct materials	20.6	18.2	18.7
Direct labor	13.5	12.9	13.5
Factory overhead:			
Indirect labor	2.8	2.4	2.4
Energy costs	19.8	20.1	22.3
Supplies/maintenance cost	21.3	21.0	20.6
Other	22.2	25.1	22.1
Subtotal	65.9	68.9	67.8
Total costs	100.0	100.0	100.0

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

Investment in Productive Facilities and Return on Assets

Data on investment in productive facilities and return on assets are shown in table 17. ***. Although the value of the assets *** their investment in property, plant, and equipment in 1993.

Table 17
Value of assets and return on assets of U.S producers' operations on primary magnesium, fiscal years 1991-93

* * * * * * *

Capital Expenditures

The capital expenditures of the three producers, shown in table 18, are ***.

Table 18
Capital expenditures by U.S. producers of primary magnesium, by companies, fiscal years 1991-93

* * * * * * *

Research and Development Expenses

The research and development (R&D) expenditures of the three producers are shown in table 19. While Dow accounted for about ***. From 1991 to 1993, Dow's overall corporate R&D expenses *** of sales. During the same time period, its magnesium operations' figures were *** percent.

Table 19
Research and development expenses of U.S. producers of primary magnesium, by companies, fiscal years 1991-93

* * * * * * *

Capital and Investment

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of magnesium from China, Russia, or Ukraine on their firms' growth, investment, ability to raise capital, or development and production efforts (including efforts to develop a derivative or more advanced version of the product). Their responses are presented in appendix E.

CONSIDERATION OF ALLEGED THREAT OF MATERIAL INJURY

Subsection 771(7)(F)(i) of the Act[58] 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 the merchandise, the Commission shall consider, among other relevant economic factors[59]*—*

(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,

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[58] 19 U.S.C. § 1677(7)(F)(i).

[59] Subsection 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."

(IX) *in any investigation under this subtitle 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.*

Following is available information on U.S. inventories of the subject products (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.

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." Items (I) and (IX) above are not relevant in these investigations.[60]

U.S. Importers' Inventories

End-of-period inventories of U.S. importers' are presented in table 20. Since imports from China, Russia, and Ukraine did not begin until 1992, there were no inventories of imported magnesium from these countries in 1991. Importers' inventories totaled *** metric tons in 1992 and *** metric tons in 1993.

[60] 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
Primary magnesium: End-of-period inventories of U.S. importers, by sources, 1991-93

* * * * * * *

Ability of Foreign Producers to Generate Exports and Availability of Export Markets Other Than the United States

The Commission sent foreign producer questionnaires to counsel representing Russian and Ukrainian producers and to a major U.S. importer of primary magnesium from China that has contacts in the industry in China. Responses were received from producers in all three countries.[61]

China

There are currently four producers of magnesium in China. Only three of the four companies export magnesium. The Commission received partial data from two of the three exporters.[62] Partial information on China's production capacity, production, capacity utilization, home-market shipments, and exports during 1991-93, and projections for 1994 are presented in table 21.

[61] The Commission also sent telegrams soliciting data from the U.S. embassies in Beijing, Moscow, and Kiev for the purpose of gathering information on the ability of foreign producers to generate exports, the availability of export markets other than the United States, and whether the subject merchandise is subject to antidumping findings or remedies in any GATT-member countries. To date, no information has been received in response to these telegrams.

[62] The two responding companies indicated that they produce only commodity-grade pure magnesium and "other non-alloy pure magnesium." Neither company produces diecasting alloys.

Table 21
Primary magnesium: China's production capacity, production, capacity utilization, home-market shipments, and exports, 1991-93, and projections for 1994

* * * * * * *

According to estimates of the U.S. Bureau of Mines, China had an annual production capacity of 9,000 metric tons in 1992, with production of 6,500 metric tons, representing a capacity utilization ratio of 72.2 percent. In 1992, 466 metric tons of magnesium were exported to the United States, accounting for 7.2 percent of total estimated production.[63]

Russia

There are two producers of magnesium in Russia, AVISMA Titanium-Magnesium Works, Berezniki, Russia, and Solikamsk Magnesium Works, Solikamsk, Russia.[64] Data on Russia's production capacity, production, capacity utilization, home-market shipments, and exports during 1991-93, and projections for 1994, are presented in table 22.[65]

[63] Because these data are from various sources, caution should be used in evaluating such data.

[64] Until the dissolution of the former U.S.S.R., magnesium producers were controlled by the military and magnesium was classified as a strategic material. Following the dissolution of the U.S.S.R., the Russian producers gained independence from the military. Large stocks of magnesium were maintained in military strategic stockpiles that were sold to international metals brokers in 1992 and 1993.

[65] The U.S. Bureau of Mines estimates that the 1993 annual production capability of AVISMA Titanium-Magnesium Works was 75,000 metric tons, 35,000 metric tons of which were dedicated to titanium production. The estimated 1993 annual production capability of Solikamsk Magnesium Works was 20,000 metric tons.

Table 22
Primary magnesium: Russia's production capacity, production, capacity utilization, home-market shipments, and exports, 1991-93, and projections for 1994

* * * * * * *

Ukraine

There are two producers of magnesium in Ukraine, Concern Chlorvinyl (Kalush Chlorvinyl), Kalush, Ukraine, and Zaparozhye Titanium and Magnesium Works, Zaparozhye, Ukraine.[66] The Commission received a partial response from Concern Chlorvinyl. Most of the data requested by the Commission are classified by Ukraine as "state secret information."

According to its questionnaire response, the maximum production capability of Kalush Chlorvinyl is *** metric tons per year.[67] According to their questionnaire response, Kalush Chlorvinyl's total shipments were *** metric tons in 1993. Projections for shipments in 1994 are estimated ***.[68]

According to estimates of the U.S. Bureau of Mines, Ukraine had an annual production capacity of 54,000 metric tons in 1992, with production of 10,000 metric tons, representing a capacity utilization ratio of 18.5 percent. In 1992, 692 metric tons of magnesium were imported into the United States, accounting for 6.9 percent of total estimated production.[69]

[66] According to a large U.S. importer of primary magnesium with contacts in Ukraine, Zaparozhye primarily produces titanium; however, Zaparozhye has been unable to pay for the necessary raw materials to produce magnesium and, accordingly, stopped production of magnesium in the summer of 1993, and subsequently announced that it will not produce magnesium in 1994. Transcript of the conference, pp. 66-67.

[67] Kalush Chlorvinyl produces only commodity-grade pure magnesium.

[68] The U.S. Bureau of Mines estimates that the 1993 annual production capability of Kalush Chlorvinyl was 24,000 metric tons.

[69] Because these data are from various sources, caution should be used in evaluating such data.

European Union Investigation

On January 17, 1994, the European Union (EU) initiated an antidumping investigation on imports of unwrought magnesium from Kazakhstan, Russia, and Ukraine, following a complaint lodged by Euro Alliages on behalf of the sole current EU producer. That investigation is currently in progress.

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

U.S. Imports

Table 23 and figure 7 present U.S. imports for consumption of primary magnesium, by sources, for the period 1991-93.[70] Data on U.S. imports were compiled from official statistics of Commerce.

Subject Imports

Imports of primary magnesium from China, Russia, or Ukraine did not begin until 1992. Therefore, no imports from China, Russia, or Ukraine were reported during 1991. The quantity of subject imports of primary magnesium increased from 3,089 metric tons in 1992 to 23,754 metric tons in 1993, a six-fold increase. The value of subject imports of primary magnesium increased from $9.1 million in 1992 to $56.9 million in 1993, a five-fold increase. The unit value of subject imports decreased from $1.34 per pound in 1992 to $1.09 per pound in 1993, a decrease of 18.7 percent.

China

No imports of primary magnesium from China were reported in 1991. The quantity of imports of primary magnesium from China increased from 466 metric tons in 1992 to 2,071 metric tons in 1993, a three-fold increase. The value of subject imports of primary magnesium increased from $1.3 million in 1992 to $5.8 million in 1993, a three-fold increase. The unit value of subject imports decreased from $1.29 per pound in 1992 to $1.27 per pound in 1993, a decrease of 1.6 percent.

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[70] Data on U.S. imports by types of magnesium are presented in app. C.

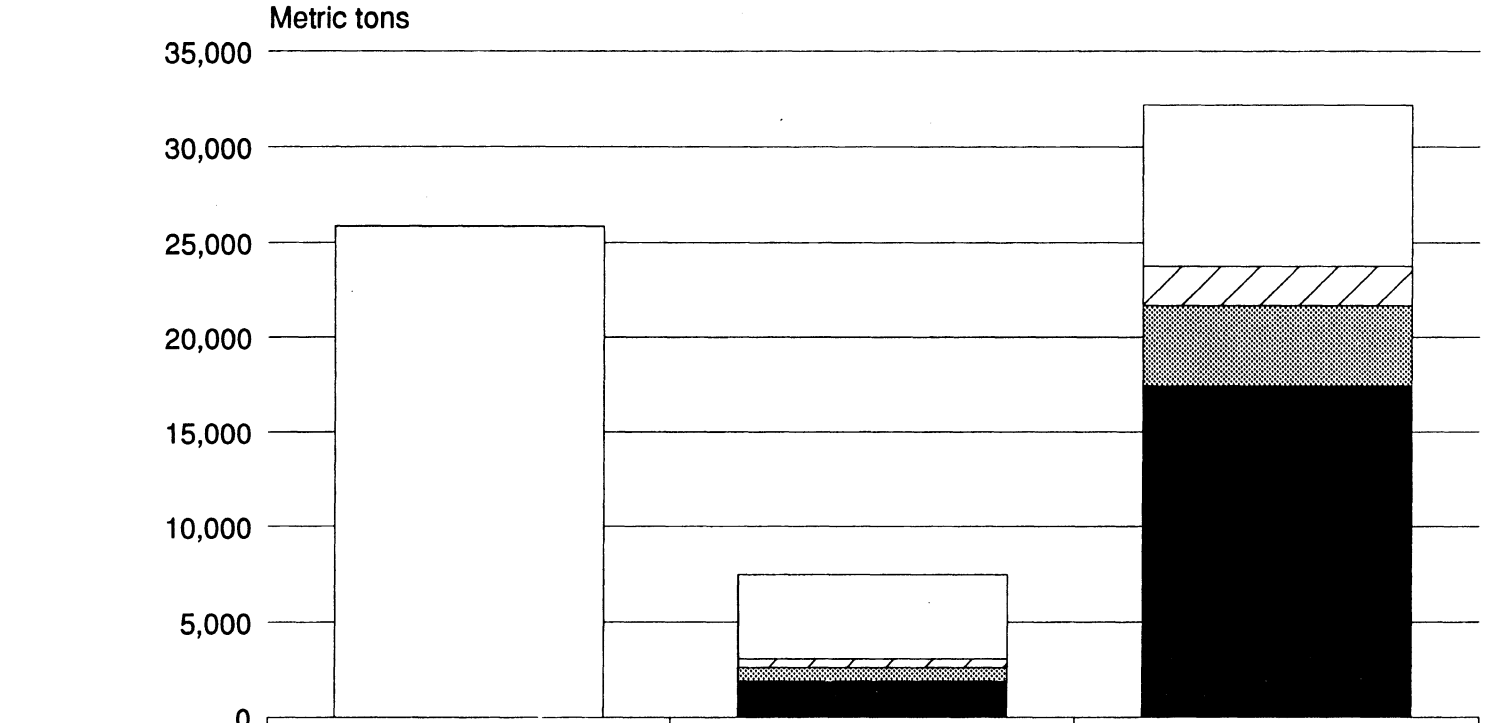
Table 23
Primary magnesium: U.S. imports, by sources, 1991-93

Source	*1991*	*1992*	*1993*
		Quantity (metric tons)	
China	0	466	2,071
Russia	0	1,930	17,443
Ukraine	0	692	4,240
Subtotal	0	3,089	23,754
All other	25,851	4,402	8,442
Total	25,851	7,490	32,196
		Value ($1,000)	
China	0	1,327	5,815
Russia	0	5,703	41,358
Ukraine	0	2,093	9,742
Subtotal	0	9,124	56,915
All other	69,820	14,209	27,640
Total	69,820	23,332	84,555
		Unit value (dollars per pound)	
China	(1)	$1.29	$1.27
Russia	(1)	1.34	1.08
Ukraine	(1)	1.37	1.04
Average	(1)	1.34	1.09
All other	$1.23	$1.46	$1.49
Average	1.23	1.41	1.19

[1] Not applicable.

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

Figure 7
Primary magnesium: U.S. imports, by sources, 1991-93



	1991	1992	1993
All other	25,851	4,402	8,442
China	0	466	2,071
Ukraine	0	692	4,240
Russia	0	1,930	17,443

Source: Table 23.

Russia

No imports of primary magnesium from Russia were reported in 1991. The quantity of imports of primary magnesium from Russia increased from 1,930 metric tons in 1992 to 17,443 metric tons in 1993, or eightfold. The value of subject imports of primary magnesium increased from $5.7 million in 1992 to $41.4 million in 1993, or a sixfold increase. The unit value of subject imports decreased from $1.34 per pound in 1992 to $1.08 per pound in 1993, or by 19.4 percent.

Ukraine

No imports of primary magnesium from Ukraine were reported in 1991. The quantity of imports of primary magnesium from Ukraine increased from 692 metric tons in 1992 to 4,240 metric tons in 1993, or by fivefold. The value of subject imports of primary magnesium increased from $2.1 million in 1992 to $9.7 million in 1993, or by threefold. The unit value of subject imports decreased from $1.37 per pound in 1992 to $1.04 per pound in 1993, or by 24.1 percent.

All Other Sources

The quantity of imports of primary magnesium from all other sources decreased from 25,851 metric tons in 1991 to 4,402 metric tons in 1992, or by 83.0 percent. However, such imports increased to 8,442 metric tons in 1993, or by 91.8 percent. The value of imports of primary magnesium from all other sources decreased from $69.8 million in 1991 to $14.2 million in 1992, or by 79.7 percent. However, such imports increased to $27.6 million in 1993, or by 94.5 percent. The unit value of imports of primary magnesium from all other sources increased from $1.23 in 1991 to $1.46 in 1992, or by 18.7 percent. The unit value of imports increased to $1.49 in 1993, or by 2.1 percent.

U.S. Market Penetration By Imports

Market penetration ratios of imports of primary magnesium as a share of the quantity and value of U.S. consumption are presented in table 24 and figure 8.[71]

[71] Data for U.S. market penetration, by products, are presented in app. C.

Table 24
Primary magnesium: Producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
Producers' U.S. shipments	85,353	112,829	92,708
U.S. imports from—			
China	0	466	2,071
Russia	0	1,930	17,443
Ukraine	0	692	4,240
Subtotal	0	3,089	23,754
All other sources	25,851	4,402	8,442
Total imports	25,851	7,490	32,196
Apparent U.S. consumption	111,204	120,319	124,904
	Share of quantity of U.S. consumption (percent)		
Producers' U.S. shipments	76.8	93.8	74.2
U.S. imports from—			
China	(1)	0.4	1.7
Russia	(1)	1.6	14.0
Ukraine	(1)	0.6	3.4
Subtotal	(1)	2.6	19.0
All other sources	23.2	3.7	6.8
Total imports	23.2	6.2	25.8

Table continued...

Table 24--*Continued*
Primary magnesium: Producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Value (1,000 dollars)		
Producers' U.S. shipments	221,847	295,980	278,754
U.S. imports from—			
China	0	1,327	5,815
Russia	0	5,703	41,358
Ukraine	0	2,093	9,742
Subtotal	0	9,124	56,915
All other sources	69,820	14,209	27,640
Total imports	69,820	23,332	84,555
Apparent U.S. consumption	291,667	319,312	363,309
	Share of value of U.S. consumption (percent)		
Producers' U.S. shipments	76.1	92.7	76.7
U.S. imports from—			
China	(1)	0.4	1.6
Russia	(1)	1.8	11.4
Ukraine	(1)	0.7	2.7
Subtotal	(1)	2.9	15.7
All other sources	23.9	4.4	7.6
Total imports	23.9	7.3	23.3

[1] Not applicable.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and official statistics of the U.S. Department of Commerce.

Figure 8
Primary magnesium: Market penetration ratios, by sources, 1991-93

	1991	1992	1993
China	0.0%	0.4%	1.7%
Ukraine	0.0%	0.6%	3.4%
Russia	0.0%	1.6%	14.0%

Source: Table 24.

Subject Imports

U.S. market penetration ratios of the quantity of subject imports of primary magnesium totaled 0.0 percent in 1991, 2.6 percent in 1992, and 19.0 percent in 1993. Ratios of the value of subject imports totaled 0.0 percent in 1991, 2.9 percent in 1992, and 15.7 percent in 1993.

China

U.S. market penetration ratios of imports of the quantity of primary magnesium from China totaled 0.0 percent in 1991, 0.4 percent in 1992, and 1.7 percent in 1993. Ratios of the value of imports from China totaled 0.0 percent in 1991, 0.4 percent in 1992, and 1.6 percent in 1993.

Russia

U.S. market penetration ratios of the quantity of imports of primary magnesium from Russia totaled 0.0 percent in 1991, 1.6 percent in 1992, and 14.0 percent in 1993. Ratios of the value of imports from Russia totaled 0.0 percent in 1991, 1.8 percent in 1992, and 11.4 percent in 1993.

Ukraine

U.S. market penetration ratios of the quantity of imports of primary magnesium from Ukraine totaled 0.0 percent in 1991, 0.6 percent in 1992, and 3.4 percent in 1993. Ratios of the value of imports from Ukraine totaled 0.0 percent in 1991, 0.7 percent in 1992, and 2.7 percent in 1993.

All Other Sources

U.S. market penetration ratios of the quantity of all other imports of primary magnesium totaled 23.2 percent in 1991, 3.7 percent in 1992, and 6.8 percent in 1993. Ratios of the value of imports from all other sources totaled 23.9 percent in 1991, 4.4 percent in 1992, and 7.6 percent in 1993.

Prices

Primary magnesium is available in three different forms: commodity-grade pure, ultrapure, and alloy. Sales of commodity-grade pure magnesium account for the majority of sales of primary magnesium in the U.S. market, while ultrapure accounts for the smallest portion.[72] The end markets for these types of magnesium are distinct in that end users who purchase commodity-grade pure or ultrapure magnesium typically do not purchase alloy magnesium and vice versa.[73] It is possible to use ultrapure magnesium in applications that normally use commodity-grade pure magnesium; however, the price premium commanded by ultrapure makes its use in commodity-grade applications economically unfeasible.

While U.S. producers manufacture and sell both pure and alloy magnesium, the majority of imports from the subject countries is commodity-grade pure magnesium. In the case of China, however, there were imports of alloy magnesium in 1992 and 1993.[74] The importer of this material, ***, reported that the Chinese magnesium was between 99.65 and 99.75 percent pure. While it was technically classified as alloy magnesium (because the level of magnesium was below 99.8 percent), *** reported that it sold the product (defined in the questionnaire as Product 2) to aluminum producers who used it in the same applications as they did commodity-grade pure magnesium.[75] Therefore, this Chinese magnesium actually competed in the marketplace with U.S-produced and imported commodity-grade pure magnesium.[76]

Because of the different end-use markets for pure and alloy magnesium, the demands for these two products are determined by somewhat different factors. The demand for pure magnesium is principally derived from demand for aluminum sheet, the end product in which the majority of the material is used. In addition, the pure magnesium product is also used in a processed form as a desulfurizing agent in refining steel. The demand for alloy magnesium is derived from the demand for the products that use magnesium diecasts, such as power tools, automotive parts, computer disc drives, and other computer parts. Thus, end users' purchases of magnesium products, both pure and alloy, vary depending on the level of demand for sheet, diecast components, new or replacement construction requiring magnesium composites, and the level of steel production. Evidence obtained in questionnaire responses indicates there are no widely accepted substitutes for

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[72] *** produces ultrapure magnesium; sales of this type of magnesium accounted for less than *** percent of total sales of all magnesium in 1991-93.

[73] Commodity-grade pure magnesium is sold to aluminum producers, magnesium granule producers for steel desulfurization, and chemical and pharmaceutical manufacturers. Ultrapure magnesium is used in metal reduction for exotic applications and in the pharmaceutical and chemical industries. Alloy magnesium is mainly sold to diecasters.

[74] ***.

[75] While it is technically classified as "alloy," exporters reported that it is not manufactured as an alloy in that no alloying agent is added in the production process.

[76] Prices for these imports are shown separately and discussed in the context of pure magnesium because they are sold as such and compete with pure magnesium.

magnesium in the applications outlined above and no cost-effective substitutes in the refining of steel.[77] Industry sources indicated increased demand for the subject products during the more recent parts of the period for which data were collected in these investigations.

The price of primary magnesium is determined in a market that comprises producers, end users, and importers or brokers for foreign manufacturers, where brokers negotiate sales and purchases of magnesium as well as speculate in the product. In some cases, brokers never take delivery on transactions they have negotiated, but merely facilitate the exchange between manufacturers and end users. Some brokers, however, carry inventories of magnesium either for speculative purposes or to retain a constant magnesium formulation for customers to fulfill contract obligations. In some cases, an end user will act as a broker, reselling imported material to other end users.

Transportation costs are typically an insignificant factor in relation to the total value of the magnesium product. For instance, based on the sampling of sales provided by U.S. producers in questionnaire responses, transportation costs as a share of total transaction value ranged from 1 percent to 4 percent of total shipment value. Importers report using U.S. price lists as a point of reference and transact sales on both an f.o.b and delivered basis. In the United States, sales by U.S. producers and importers are carried out on both a spot and contract basis, with some contracts negotiated months in advance.

Two U.S. producers and several importers reported that differences in quality between domestic and imported magnesium are a significant factor in their sales of magnesium.[78] [79] While *** reported that quality differences were not important in its sales of magnesium, *** disagreed. In its questionnaire response, *** indicated that the firm's magnesium is marketed under strict sales specifications which define chemistry and surface appearance. *** has the capability of manufacturing to a customer specification and it provides certificates of analysis with each shipment. The Russian, Ukrainian, and Chinese magnesium typically has a chemical composition which is similar to *** product; however, it is often difficult for the customer to obtain documentation of the chemical purity.[80] Those importers that reported quality differences between the U.S. and Russian and Ukrainian products found the imported product to be inferior with regard to undesirable size, potential

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[77] Respondents described several potential substitutes that may be used to replace or partially replace alloy magnesium in the production of diecast structural components. There are, however, tradeoffs that may limit the degree of substitution between alloy magnesium and products such as aluminum or zinc. Alloy magnesium has the advantages of ease of machinability and castability, light weight, and good strength-to-weight ratio. For further discussion of these issues, see the section of this report entitled "The Products."

[78] Transcript of the conference, p. 84, and questionnaire responses of producers and importers.

[79] Most producers and importers reported that imports from the three subject countries were interchangeable with one another.

[80] ***.

for oxidization due to long shipping problems, and the need for additional melting due to ingots being covered with paraffin wax.[81]

Producers and importers of primary magnesium were asked to report in each quarter from January-March 1991 through October-December 1993 the amount sold and the net price per pound received for contract sales of magnesium. The price data were requested for the largest transaction and for total sales of the products specified, by quarters, from January 1991 through December 1993. Importers were also requested to report separately for each product imported from the countries specified. The products for which pricing data were requested are as follows:[82]

PRODUCT 1: **Primary commodity-grade pure magnesium ingots containing at least 99.8 percent magnesium but less than 99.95 percent magnesium.**

PRODUCT 2: **Primary pure magnesium ingots containing at least 98.0 percent magnesium but less than 99.8 percent magnesium.**

PRODUCT 3: **Primary magnesium diecasting alloy ingots containing not more than 9 percent aluminum and 1 percent zinc.**

In addition, respondents were asked to break out sales by end use–for instance, for steel desulfurization, aluminum sheet production, or diecasting. The questionnaire responses showed no overlap by product in expected end uses of the major sales each quarter. That is, end users that purchase pure magnesium generally do not purchase alloy/diecast magnesium, and those who buy alloy/diecast magnesium do not typically buy pure magnesium. The data in tables 25 and 26 reflect quarterly weighted-average prices for major sales in the separate end-use categories described above.

Price Trends

Table 25 and figure 9 present quarterly weighted-average delivered prices (per pound) for contract sales of U.S.-produced and imported commodity grade pure magnesium sold to magnesium granular producers. Domestic quarterly prices showed some volatility between January-March 1991 and January-March 1993, when the price per pound fell by ***

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[81] One importer, ***, reported that it has been able to compensate for these disadvantages by offering the imported product at discounted prices to certain industries.

[82] The three selected products are believed to account for the bulk of magnesium sold in the U.S. market. Reported pricing data accounted for approximately *** percent of U.S. producers' domestic shipments in 1993. Pricing for the imported products accounted for approximately *** percent of shipments of imports from China, Russia, and Ukraine in 1993.

percent between January-March 1991 and January March 1992 and then rose by *** percent to *** in January-March 1993. In the period following January-March 1993, quarterly prices for domestic magnesium fell by *** percent through October-December 1993.

Table 25
Primary magnesium: Weighted-average delivered contract sale prices to magnesium granule producers of commodity-grade pure magnesium (Product 1) received by U.S. producers and importers, and margins of underselling/(overselling), by quarters, Jan. 1991-Dec. 1993

* * * * * * *

Figure 9
Primary magnesium: Weighted-average delivered contract sale prices to magnesium granule producers of commodity-grade pure magnesium (Product 1), by quarters, Jan. 1991-Dec. 1993

* * * * * * *

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

Prices received by importers for the Russian and Ukrainian products were reported in only various quarters beginning in April-June 1993. No prices were reported for the Chinese product. During April-December 1993, prices received by importers of Russian material fell ***. Importers of Russian magnesium reported receiving the lowest price in October-December 1993, *** per pound. The *** price reported by importers of Ukrainian magnesium in 1993 was *** per pound.

The prices reported in table 26 and figure 10 represent quarterly weighted-average delivered contract sale prices (per pound) for commodity-grade pure magnesium sold to aluminum manufacturers by domestic producers and by importers of material from China, Russia, and Ukraine.

Table 26
Primary magnesium: Weighted-average delivered contract sale prices to aluminum producers of commodity-grade pure magnesium (Product 1) received by U.S. producers and importers, and margins of underselling/(overselling), by quarters, Jan. 1991-Dec. 1993

* * * * * * *

Compared with the prices of pure magnesium sold to magnesium granule producers, prices paid by aluminum producers showed more variability. The price received by domestic producers from aluminum manufacturers trended downward between January-March 1991 and January-March 1992. From January-March 1991 to January-March 1992, the domestic industry's price for pure magnesium decreased *** percent from *** per pound to *** per pound. However, this fall in price was offset by the rise in price in January-March 1993 to *** per pound. The domestic industry ended the year 1993 receiving a *** higher price, on average, for its pure magnesium than it received at the start of the investigative period.

Figure 10
Primary magnesium: Weighted-average delivered contract sale prices to aluminum producers of commodity-grade pure magnesium (Product 1), by quarters, Jan. 1991-Dec. 1993

* * * * * * *

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

Prices received by importers of pure magnesium sold to aluminum manufacturers were reported only in various periods beginning in January-March 1993. Respective prices of pure magnesium from Russia and Ukraine varied between *** per pound and *** per pound through the end of 1993. Importers of Chinese materials reported receiving the lowest price in July-September 1993, *** per pound.

Because China, Russia, and Ukraine did not export alloy magnesium (for diecasting purposes) in commercial quantities during the periods for which data were collected, no direct price comparisons were possible. Prices received by domestic producers for alloy magnesium sold to diecasters *** over the period, from *** per pound to a high of *** per pound. Overall, prices were *** percent higher at the end of 1993 compared with prices at the beginning of 1991.

The tabulation below shows price data for U.S. producers' contract sales to diecasters.

Period	Weighted-average price *(per pound)*
1991:	
January-March	***
April-June	***
July-September	***
October-December	***
1992:	
January-March	***
April-June	***
July-September	***
October-December	***
1993:	
January-March	***
April-June	***
July-September	***
October-December	***

Price Comparisons

Tables 25 and 26 also show the margins of underselling or overselling between prices of imports of material from the specified countries and domestic prices as a percentage of the domestic price. In every sale to end users, the prices of Chinese, Russian, and Ukrainian material were below those charged by domestic producers.[83] Thus, the margins referred to reflect margins of underselling only.

For sales to magnesium granule producers, the margins of underselling by Russian and Ukrainian material fluctuated to a minimum of 9.8 percent in *** but most frequently were around 14 percent. Margins of underselling for commodity grade pure magnesium sold to aluminum manufacturers showed more variability than those of pure magnesium sold to granule producers. Margins varied from a low of 5.7 percent in *** for Chinese material to a high of 17.6 percent in *** for the Ukrainian magnesium.

[83] ***.

Other Price Comparisons

*** provided data for some of its quarterly sales of magnesium; however, these prices were for a mixture of purity levels of magnesium and were for spot rather than contract sales.[84] Because these data were not comparable to the majority of responses, they could not be included in the weighted-average prices calculated and presented in table 26. *** prices for combined sales of Products 1 and 2 sold to aluminum manufacturers are shown in the tabulation below. As the tabulation shows, *** prices *** in 1992 and then generally *** in 1993. Prices by all other importers for the Chinese product (table 26) fell within the range of those prices reported by ***.

Period	Weighted-average price *(per pound)*
1992:	
June	***
July	***
August	***
September	***
October	***
November	***
December	***
1993:	
January	***
February	***
March	***
April	***
May	***
June	***
July	***
August	***
September	***
October	***
November	***
December	***

[84] ***.

Lost Sales and Lost Revenues

Of the domestic producers of magnesium responding to Commission questionnaires, two made specific allegations of lost sales; one producer alleged lost revenues but could not provide the actual value of its winning bid. Alleged proceeds lost because of imports of such merchandise from the specified countries in aggregate totaled approximately *** million.

The staff investigated a selection of the most significant allegations through telephone interviews. One difficulty encountered was that final users sometimes did not know the country of origin of products purchased, since the product was acquired from a broker. Only one purchasing firm, ***, was able to verify one instance of a lost sale involving approximately *** pounds of magnesium, an amount equivalent to its annual requirement for calendar year 1993. Lower price was the principal reason cited by *** for its decision to buy magnesium imported from *** in lieu of the domestic product. The purchasing director advised that at its receiving point the margin of underselling by *** material averaged *** per pound. He further advised that in the bid process *** overpriced its domestic competitors by *** per pound. This margin resulted from *** allegedly high cost structure.

Because, as noted previously, end users typically buy magnesium products simultaneously from multiple sources, the remaining major consumers contacted could not verify specific allegations, which involved a total of 17.4 million pounds of magnesium. All firms reported, however, that buying magnesium simultaneously from several suppliers forces domestic producers to be more competitive in pricing policies. In several instances, consumers indicated they were forced to reject the subject material because it was not of contract quality for aluminum sheet, the principal end product in which primary magnesium is used. Another firm reported that it bought imports in 1993 because of lower price. The buyer stated, however, that in retrospect, while low prices were a consideration in buying imported magnesium, ingot size was a more important consideration, because more labor was involved in handling the smaller imported ingots. The buyer is planning to switch from foreign to domestic sources in the near future because of the advantages of U.S.-configured ingots. One firm, ***, indicated that in the period leading up to the current investigations, it had repeatedly contacted *** in an effort to obtain magnesium but was advised that *** had no metal available for sale.

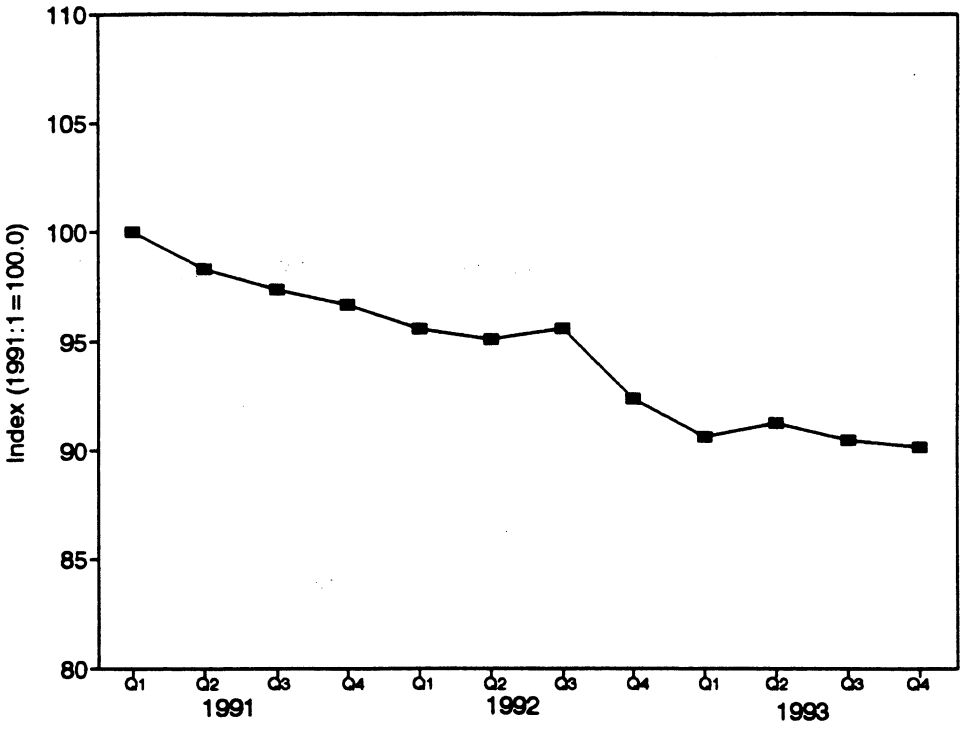
* * * * * * *

Exchange Rates

The nominal value of the Chinese yuan depreciated by 9.8 percent relative to the U.S. dollar from January-March 1991 to October-December 1993 (figure 11).

Since the value of the currencies of Russia and Ukraine are determined by their Governments rather than by the free market, accurate measures of respective movements in currency exchange rates cannot be presented.

Figure 11
Nominal exchange rates of the Chinese yuan, by quarters, Jan. 1991-Dec. 1993



Source: International Monetary Fund, International Financial Statistics, Mar. 1994

APPENDIX A

THE COMMISSION'S AND COMMERCE'S *Federal Register* NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigations Nos. 731-TA-696-698 (Preliminary)]

Magnesium From the People's Republic of China, The Russian Federation, and Ukraine

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of preliminary antidumping investigations.

SUMMARY: The Commission hereby gives notice of the institution of preliminary antidumping investigations Nos. 731-TA-696-698 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from the People's Republic of China, the Russian Federation, and Ukraine of unwrought magnesium (primary magnesium), provided for in subheadings 8104.11.00 and 8104.19.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value. The Commission must complete preliminary antidumping investigations in 45 days, or in this case by May 16, 1994.

For further information concerning the conduct of these investigations 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 B (19 CFR part 207).

EFFECTIVE DATE: March 31, 1994.

FOR FURTHER INFORMATION CONTACT:

Fred H. Fischer (202-205-3179), 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. Information can also be obtained by calling the Office of Investigations' remote bulletin board system for personal computers at 202-205-1895 (N,8,1).

SUPPLEMENTARY INFORMATION:

Background

These investigations are being instituted in response to a petition filed on March 31, 1994, by Magnesium Corporation of America (Magcorp), Salt Lake City, UT; the International Union of Operating Engineers, Local 564, Freeport, TX; and the United Steelworkers of America, Local 8319, Salt Lake City, UT.

Participation in the Investigations and Public Service List

Persons (other than petitioners) wishing to participate in these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in §§ 201.11 and 207.10 of the Commission's rules, not later than seven (7) 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 these investigations 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 section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in these preliminary investigations available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than seven (7) 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.

Conference

The Commission's Director of Operations has scheduled a conference in connection with these investigations for 9:30 a.m. on Thursday, April 21, 1994, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Fred H. Fischer (202–205–3179) not later than Monday, April 18, 1994, to arrange for their appearance. Parties in support of the imposition of antidumping duties in these investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

Written Submissions

As provided in § 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before Tuesday, April 26, 1994, a written brief containing information and arguments pertinent to the subject matter of the investigations. Parties may file written testimony in connection with their presentation at the conference no later than three (3) days before the conference. If briefs or written testimony contain BPI, they must 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 investigations must be served on all other parties to the investigations (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: These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to section 207.12 of the Commission's rules.

Issued: April 6, 1994.

By order of the Commission.

Donna R. Koehnke,

Secretary.

[FR Doc. 94–8790 Filed 4–7–94; 4:44 pm]

BILLING CODE 7020–02–P–M

DEPARTMENT OF COMMERCE

International Trade Administration

[A-570-832, A-570-833, A-821-805, A-821-806, A-823-806, A-823-807]

Initiation of Antidumping Duty Investigations: Pure and Alloy Magnesium From the People's Republic of China, the Russian Federation, and Ukraine

AGENCY: Import Administration, International Trade Administration, Commerce.

EFFECTIVE DATE: April 26, 1994.

FOR FURTHER INFORMATION CONTACT: Ellen Grebasch or Erik Warga, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone (202) 482-3773 or 482-0922.

Initiation of Investigations

The Petitions

On March 31, 1994, we received petitions filed in proper form by Magnesium Corporation of America ("Magcorp"), the International Union of Operating Engineers, Local 564, and the United Steelworkers of America, Local 8319 (collectively, the "petitioners"). The petitioners submitted additional information supporting their allegations on April 7 and 14, 1994. In accordance with 19 CFR 353.12, the petitioners allege that imports of pure and alloy magnesium from the People's Republic of China ("PRC"), the Russian Federation, and Ukraine are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that such imports are materially injuring, or threatening material injury to, a U.S. industry.

The petitioners stated that they have standing to file the petition because they are interested parties, as defined under sections 771(9)(C) and 771(9)(D) of the Act, and the petition is filed on behalf of the U.S. industry producing the product subject to this investigation. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, it should file a written notification with the Assistant Secretary for Import Administration.

Scope of Investigations

For purposes of these initiations we are considering the products covered by these petitions to be two classes or kinds of merchandise, *i.e.*, pure magnesium and alloy magnesium. See, *Concurrence Memo* which is on file in the Central Records Unit, room B-099 of the Main Commerce Building. Petitioners contend that primary magnesium constitutes a single class or kind of merchandise under the Act. Petitioners argue that although the Department divided magnesium products into two classes or kinds (pure and alloy) in the final determination of *Pure and Alloy Magnesium from Canada* (July 13, 1992, 57 FR 30939), the imported merchandise in these investigations is different from that in the Canadian investigation. We invite interested parties to comment on this issue by May 13, 1994.

A. Pure Magnesium

The products covered by these investigations are imports of pure primary magnesium regardless of chemistry, form or size, unless expressly excluded from the scope of these investigations. Primary magnesium is a metal or alloy containing by weight primarily the element magnesium and produced by decomposing raw materials into magnesium metal.

Pure primary magnesium encompasses all products that contain at least 99.95% primary magnesium, by weight (generally referred to as "ultra-pure" magnesium), as well as products containing less than 99.95% but not less than 99.8% primary magnesium, by weight (generally referred to as "pure" magnesium). Products that have the aforementioned primary magnesium content, but that do not conform to ASTM Specifications or other industry or customer-specific specifications, are included in the scope of these investigations.

Pure primary magnesium is cast and sold in various physical forms and sizes, including ingots, slabs, rounds, billets and other shapes.

Excluded from the scope of these investigations are primary magnesium anodes, granular primary magnesium (including turnings and powder), and secondary magnesium.

Granular magnesium, turnings, and powder are classifiable under *Harmonized Tariff Schedule of the United States* (HTSUS) subheading 8104.30.00. Magnesium granules and turnings (also referred to as chips) are produced by grinding and/or crushing primary magnesium and thus have the same chemistry as primary magnesium. Although not susceptible to precise measurement because of their irregular shapes, turnings or chips are typically produced in course shapes and have maximum length of less than 1 inch. Although sometimes produced in larger sizes, granules are more regularly shaped than turnings or chips, and have a typical size of 2mm in diameter or smaller.

Powders are also produced from grinding and/or crushing primary magnesium and have the same chemistry as primary magnesium, but are even smaller than granules or turnings. Powders are defined by the Section Notes to Section XV, the section of the HTSUS in which subheading 8104.30.00 appears, as products of which 90 percent or more by weight will pass through a sieve having a mesh aperture of 1mm. (See HTSUS, Section XV, Base Metals and Articles of Base Metals, Note 6(b).) Accordingly, the exclusion of magnesium turnings, granules and powder from the scope include products having a maximum physical dimension (*i.e.*, length or diameter) of 1 inch or less.

The products subject to these investigations are classifiable under subheadings 8104.11.00 and 8104.20.00 of the HTSUS. Although the HTSUS subheadings are provided for convenience and customs purposes, our written description of the scope is dispositive.

B. Alloy Magnesium

The products covered by these investigations are imports of alloy primary magnesium regardless of chemistry, form or size, unless expressly excluded from the scope of these investigations. Primary magnesium is a metal or alloy containing by weight primarily the element magnesium and produced by decomposing raw materials into magnesium metal.

These investigations cover alloy primary magnesium products which contain 50% or greater, but less than 99.8%, primary magnesium, by weight. Products with the aforementioned primary magnesium content that do not conform to ASTM Specifications or other industry or customer-specific specifications are included in the scope of this investigation. In addition to primary magnesium, "alloy" magnesium generally contains one or more of the following items in amounts less than the primary magnesium itself: (1) Other elements deliberately added to the primary magnesium; (2) magnesium scrap or secondary magnesium; (3) oxidized magnesium; and (4) other elements present as impurities.

Alloy primary magnesium is cast and sold in various physical forms and sizes, including ingots, slabs, rounds, billets and other shapes.

Excluded from the scope of these investigations are primary magnesium

anodes, granular primary magnesium (including turnings and powder), and secondary magnesium.

Granular magnesium, turnings, and powder are classifiable under *Harmonized Tariff Schedule of the United States* (HTSUS) subheading 8104.30.00. Magnesium granules and turnings (also referred to as chips) are produced by grinding and/or crushing primary magnesium and thus have the same chemistry as primary magnesium. Although not susceptible to precise measurement because of their irregular shapes, turnings or chips are typically produced in coarse shapes and have maximum length of less than 1 inch. Although sometimes produced in larger sizes, granules are more regularly shaped then turnings or chips, and have a typical size of 2mm in diameter or smaller.

Powders are also produced from grinding and/or crushing primary magnesium and have the same chemistry as primary magnesium, but are even smaller than granules or turnings. Powders are defined by the Section Notes to Section XV, the section of the HTSUS in which subheading 8104.30.00 appears, as products of which 90 percent or more by weight will pass through a sieve having a mesh aperture of 1mm. (*See* HTSUS, Section XV, Base Metals and Articles of Base Metals, Note 6(b).) Accordingly, the exclusion of magnesium turnings, granules and powder from the scope include products having a maximum physical dimension (*i.e.*, length or diameter) of 1 inch or less.

The products subject to these investigations are classifiable under subheadings 8104.19.00 and 8104.20.00 of the HTSUS. Although the HTSUS subheadings are provided for convenience and customs purposes, our written description of the scope is dispositive.

United States Price and Foreign Market Value

A. Non-Market Economy Determination

The PRC, the Russian Federation, and Ukraine have all been determined to be non-market economy (NME) countries within the meaning of sections 771(18)(A) and (C) of the Act in previous investigations and the presumption of NME status continues for the initiation of these investigations. See, *e.g., Final Determination of Sales at Less Than Fair Value: Certain Compact Ductile Iron Waterworks Fittings and Accessories Thereof from the PRC*, 58 FR 37908 (July 14, 1993); *Final Determination of Sales at Less Than Fair Value: Ferrosilicon from the Russian Federation*, 58 FR 29192 (May 19, 1993); *Preliminary Determinations of Sales at Less Than Fair Value: Ferrosilicon from Kazakhstan, the Russian Federation, and Ukraine*, 57 FR 61876 (December 29, 1992).

In accordance with section 773(c) of the Act, foreign market value (FMV) in NME cases is based on NME producers' factors of production, valued in a market economy country. Absent evidence that a particular NME country government determines which of its factories shall produce for export to the United States, we intend, for purposes of this investigation, to base FMV only on those factories that produced pure and/or alloy magnesium sold to the United States during the period of investigations (POI).

In the course of these investigations, parties will have the opportunity to address these NME determinations and provide relevant information and argument on these issues. In addition, parties will have the opportunity in these investigations to submit comments on whether FMV should be based on prices or costs in the respective NME.

B. Pure Magnesium

For the PRC, the Russian Federation, and Ukraine, petitioners based United States price (USP) on 1993 country-specific Customs unit values for entries of pure primary magnesium.

For all three countries, petitioners contend that the FMV of imports subject to these investigations must be determined in accordance with section 773(c) of the Act, which concerns NME countries (see "Non-Market Economy Determination" section of the notice, above). Accordingly, petitioners calculated FMV on the basis of the valuation of the factors of production. The factors of production used by petitioners were based on Magcorp's experience with a production process similar to that used in the PRC, the Russian Federation, and Ukraine.

Petitioners' FMV consisted of the sum of materials, labor, energy, overhead, general expenses, profit, and packing. To value the factors of production, petitioners relied where possible on publicly available information from an appropriate surrogate country. Where such information was unavailable, petitioners resorted to publicly available information from the United States and proprietary information based on their own experience. For one production factor, petitioners also relied on an export price from the PRC.

For purposes of these initiations, we have accepted, pursuant to section 773(c)(4) of the Act, petitioners' view that India (for the PRC) and Brazil (for the Russian Federation and Ukraine) are appropriate surrogate countries. We have disregarded factor values based on prices in the United States because (1) petitioners have failed to follow the Department's established hierarchy with respect to factor valuation, and (2) petitioners provide no basis for determining that United States values are representative of the appropriate surrogate country values. In addition, we have disregarded the factor value based on an export price in the PRC since the PRC is an NME and cannot be an appropriate surrogate to value factors of production.

Pursuant to section 773(c)(1) of the Act, petitioners added to the labor and material costs the percentage for overhead based on their own experience and the statutory minima of ten percent for general expenses and eight percent for profit, as well as an amount for packing (which, because it was based on U.S. values, was disallowed).

C. Alloy Magnesium

For the PRC, the Russian Federation, and Ukraine, petitioners based USP on 1993 country-specific Customs unit values for entries of alloy primary magnesium. For each country, petitioners calculated FMV for alloy primary magnesium using the same factors of production as were used for pure primary magnesium. Petitioners contend that the pure primary magnesium must be manufactured and then mixed with an alloy to create alloy primary magnesium, and that this process involves additional cost. Therefore, the use of the pure primary magnesium factor values to determine an alloy primary magnesium FMV produces a conservative estimate. *See, e.g., Final Affirmative Determination; Rescission of Investigation and Partial Dismissal of Petition: Pure and Alloy Magnesium from Canada*, 57 FR 30939 (July 13, 1992).

Fair Value Comparisons

A. Pure Magnesium

Based on a comparison of USP and FMV, petitioners' alleged dumping margins, as corrected by the Department for methodological errors and/or unsupported data, are as follows:

Country	Revised range
PRC	75.67% to 92.01%.
Russian Federation	43.37% to 64.12%.
Ukraine	40.15% to 53.99%.

B. Alloy Magnesium

Based on a comparison of USP and FMV, petitioners' alleged dumping margins, as corrected by the Department

for methodological errors and/or unsupported data, are as follows:

Country	Revised range
PRC	46.14% to 47.44%.
Russian Federation	48.49% to 107.89%.
Ukraine	21.10%.

Initiations of Investigations

We have examined the petitions on pure and alloy magnesium and have found that they meet the requirements of section 732(b) of the Act. Therefore, we are initiating antidumping duty investigations to determine whether imports of pure and alloy magnesium from the PRC, the Russian Federation, and Ukraine are being, or are likely to be, sold in the United States at less than fair value.

ITC Notification

Section 732(d) of the Act requires us to notify the International Trade Commission (ITC) of these actions, and we have done so.

Preliminary Determination by the ITC

The ITC will determine by May 16, 1994, whether there is a reasonable indication that imports of pure and alloy magnesium from the PRC, the Russian Federation, and Ukraine are materially injuring, or threaten material injury to, a U.S. industry. Any ITC determination which is negative will result in the respective investigation being terminated; otherwise, these investigations will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act and 19 CFR 353.13(b).

Dated: April 20, 1994.

Susan G. Esserman,

Assistant Secretary for Import Administration.

[FR Doc. 94–10067 Filed 4–25–94; 8:45 am]

BILLING CODE 3510–DS–M

APPENDIX B

LIST OF PARTICIPANTS IN THE COMMISSION'S CONFERENCE

LIST OF PARTICIPANTS IN THE PUBLIC CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's conference held in connection with the subject investigations on April 21, 1994, in the Commission's main hearing room, 500 E Street, S.W., Washington, DC.

In Support of the Imposition of Antidumping Duties

Baker & Botts
Washington, DC

On behalf of—

Magnesium Corporation of America
International Union of Operating Engineers, Local 564
United Steelworkers of America, Local 8319

Lee R. Brown, Vice President, Magnesium Corporation of America
Dr. Kenneth R. Button, Economic Consulting Services, Inc.
Michael DeSchryver, Economic Consulting Services, Inc.

Charles M. Darling, IV)
William D. Kramer)–OF COUNSEL
Michael X. Marinelli)

In Opposition to the Imposition of Antidumping Duties

Ackerson & Bishop
Washington, DC

On behalf of—

Gerald Metals, Inc.
Kalush Chlorvinyl (Ukraine)

Lawrence Lerner, Vice President, Gerald Metals, Inc.

Frederick P. Waite)
M. Roy Goldberg)–OF COUNSEL
Ann E. Feely)

Wilmer, Cutler & Pickering
Washington, DC

On behalf of—

AVISMA Titanium-magnesium Works (Russia)
Solikamsk Magnesium Works (Russia)

Andrew Mestel, Executive Vice President, Interlink Metals and Chemicals, Inc.

John D. Greenwald--OF COUNSEL

Midland Export Ltd. (importer from China)
Bensalem, PA

Andrew Lubin, President, Midland Export Ltd.
Wang Shi Bin, Commercial Attache - Metals & Minerals, Embassy of the People's Republic of China

APPENDIX C

COMPANION DATA TABLES BY TYPES OF MAGNESIUM

Companion Tables

Attached are companion tables to selected aggregated tables in the report. The following tables present selected data by types of magnesium.

Table C-1
Pure magnesium: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, 1991-93

* * * * * * *

Table C-2
Alloy magnesium: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, 1991-93

* * * * * * *

Table C-3
Pure magnesium: Shipments of U.S. producers, 1991-93

* * * * * * *

Table C-4
Alloy magnesium: Shipments of U.S. producers, 1991-93

* * * * * * *

Table C-5
Pure magnesium: U.S. producers' end-of-period inventories, 1991-93

* * * * * * *

Table C-6
Alloy magnesium: U.S. producers' end-of-period inventories, 1991-93

* * * * * * *

Table C-7
Income-and-loss experience of U.S. producers[1] on their pure magnesium operations, fiscal years 1991-93

* * * * * * *

Table C-8
Income-and-loss experience of U.S. producers[1] on their alloy magnesium operations, fiscal years 1991-93

* * * * * * *

Table C-9
Pure magnesium: U.S. imports,[1] by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
China	0	370	1,148
Russia	0	1,930	16,639
Ukraine	0	692	4,223
Subtotal	0	2,992	22,010
All other sources	21,758	1,251	2,226
Total	21,758	4,243	24,236
	Value (1,000)		
China	0	1,053	3,159
Russia	0	5,703	39,546
Ukraine	0	2,093	9,698
Subtotal	0	8,849	52,403
All other sources	56,167	3,443	6,301
Total	56,167	12,292	58,704
	Unit value (dollars per pound)		
China	(2)	$1.29	$1.25
Russia	(2)	1.34	1.08
Ukraine	(2)	1.37	1.04
Subtotal	(2)	1.34	1.08
All other sources	$1.17	1.25	1.28
Total	1.17	1.31	1.10

[1] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultrapure and commodity-grade pure magnesium are classified as "pure" magnesium, while imports of off-specification pure and alloy magnesium are classified as "alloy" magnesium.
[2] Not applicable.

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

Table C-10
Alloy magnesium: U.S. imports,[1] by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
China	0	96	923
Russia	0	0	804
Ukraine	0	0	17
Subtotal	0	96	1,744
All other sources	4,093	3,151	6,215
Total	4,093	3,247	7,960
	Value (1,000)		
China	0	275	2,657
Russia	0	0	1,811
Ukraine	0	0	44
Subtotal	0	275	4,512
All other sources	13,652	10,766	21,340
Total	13,652	11,040	25,851
	Unit value (dollars per pound)		
China	(2)	$1.29	$1.31
Russia	(2)	(2)	1.02
Ukraine	(2)	(2)	1.16
Subtotal	(2)	1.29	1.17
All other sources	$1.51	1.55	1.56
Total	1.51	1.54	1.47

[1] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultrapure and commodity-grade pure magnesium are classified as "pure" magnesium, while imports of off-specification pure and alloy magnesium are classified as "alloy" magnesium.
[2] Not applicable.

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

Table C-11
Pure magnesium: Producers' U.S. shipments, U.S. imports,[1] and apparent U.S. consumption, by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	0	370	1,148
Russia	0	1,930	16,639
Ukraine	0	692	4,223
Subtotal	0	2,992	22,010
All other sources	21,758	1,251	2,226
Total imports	21,758	4,243	24,236
Apparent U.S. consumption	***	***	***
	Share of quantity of U.S. consumption (percent)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	***	***	***
Russia	***	***	***
Ukraine	***	***	***
Subtotal	***	***	***
All other sources	***	***	***
Total imports	***	***	***

Table continued...

Table C-11--*Continued*
Pure magnesium: Producers' U.S. shipments, U.S. imports,[1] and apparent U.S. consumption, by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Value (1,000 dollars)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	0	1,053	3,159
Russia	0	5,703	39,546
Ukraine	0	2,093	9,698
Subtotal	0	8,849	52,403
All other sources	56,167	3,443	6,301
Total imports	56,167	12,292	58,704
Apparent U.S. consumption	***	***	***
	Share of value of U.S. consumption (percent)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	***	***	***
Russia	***	***	***
Ukraine	***	***	***
Subtotal	***	***	***
All other sources	***	***	***
Total imports	***	***	***

[1] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultrapure and commodity-grade pure magnesium are classified as "pure" magnesium, while imports of off-specification pure and alloy magnesium are classified as "alloy" magnesium.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and official statistics of the U.S. Department of Commerce.

Table C-12
Alloy magnesium: Producers' U.S. shipments, U.S. imports,[1] and apparent U.S. consumption, by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Quantity (metric tons)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	0	96	923
Russia	0	0	804
Ukraine	0	0	17
Subtotal	0	96	1,744
All other sources	4,093	3,151	6,215
Total imports	4,093	3,247	7,960
Apparent U.S. consumption	***	***	***
	Share of quantity of U.S. consumption (percent)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	***	***	***
Russia	***	***	***
Ukraine	***	***	***
Subtotal	***	***	***
All other sources	***	***	***
Total imports	***	***	***

Table continued...

Table C-12--*Continued*
Alloy magnesium: Producers' U.S. shipments, U.S. imports,[1] and apparent U.S. consumption, by sources, 1991-93

Item	*1991*	*1992*	*1993*
	Value (1,000 dollars)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	0	275	2,657
Russia	0	0	1,811
Ukraine	0	0	44
Subtotal	0	275	4,512
All other sources	13,652	10,766	21,340
Total imports	13,652	11,040	25,851
Apparent U.S. consumption	***	***	***
	Share of value of U.S. consumption (percent)		
Producers' U.S. shipments	***	***	***
U.S. imports from—			
China	***	***	***
Russia	***	***	***
Ukraine	***	***	***
Subtotal	***	***	***
All other sources	***	***	***
Total imports	***	***	***

[1] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultrapure and commodity-grade pure magnesium are classified as "pure" magnesium, while imports of off-specification pure and alloy magnesium are classified as "alloy" magnesium.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and official statistics of the U.S. Department of Commerce.

APPENDIX D

SUMMARY DATA CONCERNING THE U.S. MARKET

Table D-1
Primary magnesium: Summary data concerning the U.S. market, 1991-93

(Quantity=metric tons; value=1,000 dollars; unit values, unit labor costs, and unit COGS are per metric ton; period changes=percent, except where noted)

Item	Reported data			Period changes		
	1991	1992	1993	1991-93	1991-92	1992-93
U.S. consumption quantity:						
Amount	111,204	120,319	124,904	+12.3	+8.2	+3.8
Producers' share 1/	76.8	93.8	74.2	-2.5	+17.0	-19.6
Importers' share: 1/						
China	0	0.4	1.7	+1.7	+0.4	+1.3
Russia	0	1.6	14.0	+14.0	+1.6	+12.4
Ukraine	0	.6	3.4	+3.4	+0.6	+2.8
Subtotal	0	2.6	19.0	+19.0	+2.6	+16.5
Other sources	23.2	3.7	6.8	-16.5	-19.6	+3.1
Total	23.2	6.2	25.8	+2.5	-17.0	+19.6
U.S. consumption value:						
Amount	291,667	319,312	363,309	+24.6	+9.5	+13.8
Producers' share 1/	76.1	92.7	76.7	+0.7	+16.6	-16.0
Importers' share: 1/						
China	0	0.4	1.6	+1.6	+0.4	+1.2
Russia	0	1.8	11.4	+11.4	+1.8	+9.6
Ukraine	0	.7	2.7	+2.7	+0.7	+2.0
Subtotal	0	2.9	15.7	+15.7	+2.9	+12.8
Other sources	23.9	4.4	7.6	-16.3	-19.5	+3.2
Total	23.9	7.3	23.3	-0.7	-16.6	+16.0
U.S. importers' imports from--						
China:						
Imports quantity	0	466	2,071	2/	2/	+344.4
Imports value	0	1,327	5,815	2/	2/	+338.2
Unit value	2/	$2,849	$2,808	2/	2/	-1.4
Ending inventory qty	***	***	***	***	***	***
Russia:						
Imports quantity	0	1,930	17,443	2/	2/	+803.8
Imports value	0	5,703	41,358	2/	2/	+625.2
Unit value	2/	$2,955	$2,371	2/	2/	-19.8
Ending inventory qty	***	***	***	***	***	***
Ukraine:						
Imports quantity	0	692	4,240	2/	2/	+512.7
Imports value	0	2,093	9,742	2/	2/	+365.5
Unit value	2/	$3,023	$2,297	2/	2/	-24.0
Ending inventory qty	***	***	***	***	***	***
Subject sources:						
Imports quantity	0	3,089	23,754	2/	2/	+669.0
Imports value	0	9,124	56,915	2/	2/	+523.8
Unit value	2/	$2,954	$2,396	2/	2/	-18.9
Ending inventory qty	***	***	***	***	***	***
Other sources:						
Imports quantity	25,851	4,402	8,442	-67.3	-83.0	+91.8
Imports value	69,820	14,209	27,640	-60.4	-79.6	+94.5
Unit value	$2,701	$3,228	$3,274	+21.2	+19.5	+1.4
All sources:						
Imports quantity	25,851	7,490	32,196	+24.5	-71.0	+329.9
Imports value	69,820	23,332	84,555	+21.1	-66.6	+262.4
Unit value	$2,701	$3,115	$2,626	-2.8	+15.3	-15.7
Ending inventory qty	***	***	***	***	***	***

Table continued...

Table D-1—*Continued*
Primary magnesium: Summary data concerning the U.S. market, 1991-93

(Quantity=metric tons; value=1,000 dollars; unit values, unit labor costs, and unit COGS are per metric ton; period changes=percent, except where noted)

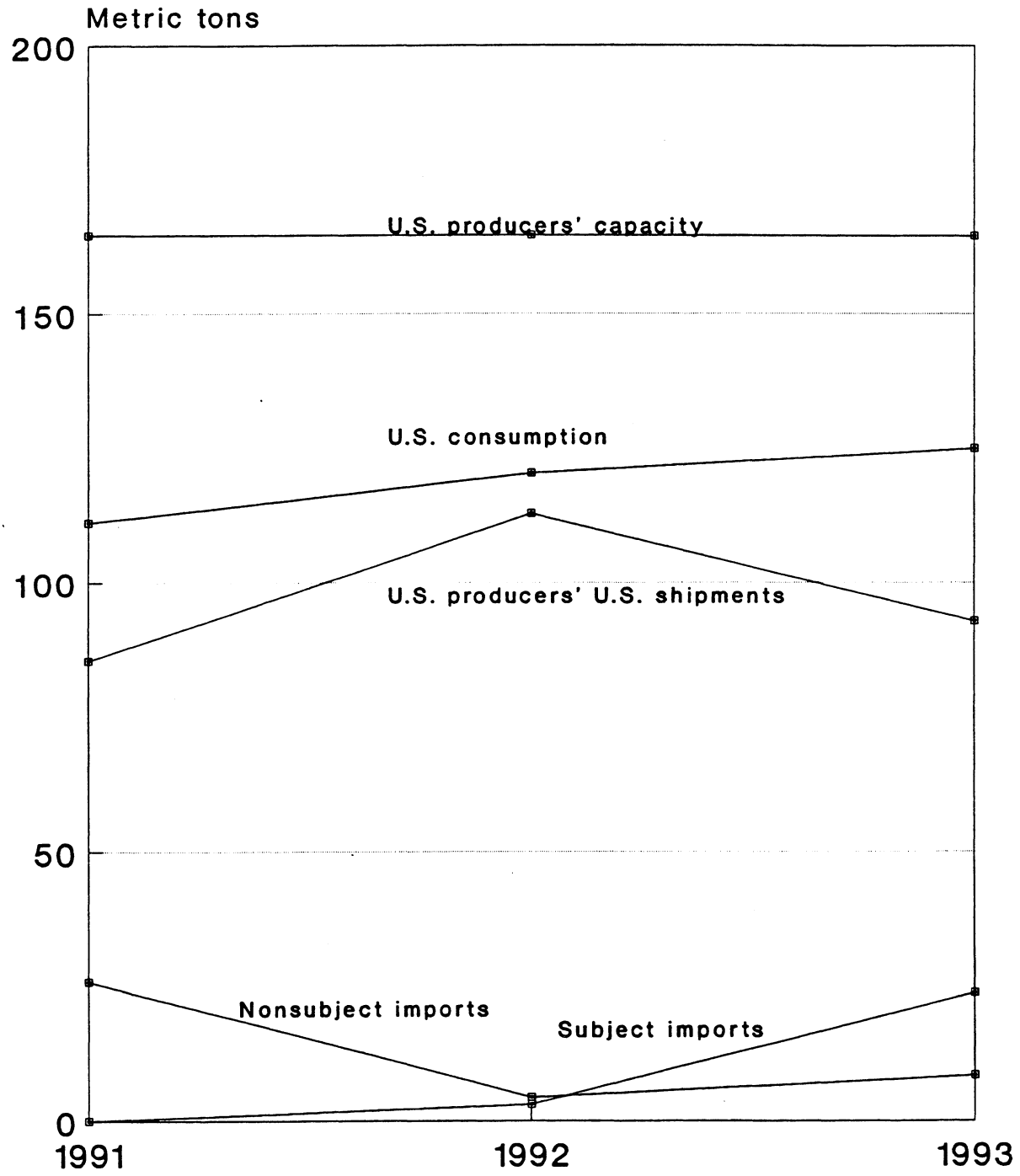
Item	Reported data			Period changes		
	1991	1992	1993	1991-93	1991-92	1992-93
U.S. producers'--						
Average capacity quantity..	164,667	164,667	164,667	0	0	0
Production quantity.....	133,341	137,683	129,956	-2.5	+3.3	-5.6
Capacity utilization 1/....	81.0	83.6	78.9	-2.1	+2.6	-4.7
U.S. shipments:						
Quantity.....	85,353	112,829	92,708	+8.6	+32.2	-17.8
Value.....	221,847	295,980	278,754	+25.7	+33.4	-5.8
Unit value.....	$2,599	$2,623	$3,007	+15.7	+0.9	+14.6
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments 1/.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity..	22,233	8,752	17,697	-20.4	-60.6	+102.2
Inventory/shipments 1/.....	16.9	5.8	14.8	-2.1	-11.1	+9.0
Production workers.....	1,652	1,616	1,596	-3.4	-2.2	-1.2
Hours worked (1,000s).....	3,472	3,446	3,390	-2.4	-0.7	-1.6
Total comp. ($1,000).....	70,688	74,247	74,844	+5.9	+5.0	+0.8
Hourly total compensation..	$20.36	$21.55	$22.08	+8.4	+5.8	+2.5
Productivity (metric tons per 1,000 hours).....	38.4	40.0	38.3	-0.2	+4.0	-4.1
Unit labor costs.....	$530.13	$539.26	$575.92	+8.6	+1.7	+6.8
Net sales--						
Quantity.....	138,610	154,035	124,172	-10.4	+11.1	-19.4
Value.....	337,393	395,407	364,990	+8.2	+17.2	-7.7
Cost of goods sold (COGS)..	344,138	384,131	344,736	+0.2	+11.6	-10.3
Gross profit (loss).....	(6,745)	11,276	20,254	+400.3	+267.2	+79.6
SG&A expenses.....	34,440	32,153	31,116	-9.7	-6.6	-3.2
Operating income (loss)....	(41,185)	(20,877)	(10,862)	+73.6	+49.3	+48.0
Capital expenditures.....	***	***	***	***	***	***
Unit COGS.....	$2,483	$2,494	$2,776	+11.8	+0.4	+11.3
COGS/sales 1/.....	102.0	97.1	94.5	-7.5	-4.9	-2.7
Op.income (loss)/sales 1/..	(12.2)	(5.3)	(3.0)	+9.2	+6.9	+2.3

1/ "Reported data" are in percent and "period changes" are in percentage points.
2/ Not applicable.
3/ An increase of 1,000 percent or more.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated from the unrounded figures, 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 and from official statistics of the U.S. Department of Commerce.

Figure D-1
Primary magnesium: Summary data, 1991-93



Source: Table D-1.

Table D-2
Pure magnesium: Summary data concerning the U.S. market, 1991-93

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Figure D-2
Pure magnesium: Summary data concerning the U.S. market, 1991-93

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Source: Table D-2.

Table D-3
Alloy magnesium: Summary data concerning the U.S. market, 1991-93

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Figure D-3
Alloy magnesium: Summary data concerning the U.S. market, 1991-93

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Source: Table D-2.

APPENDIX E

EFFECTS OF IMPORTS ON PRODUCERS' EXISTING DEVELOPMENT AND PRODUCTION EFFORTS, GROWTH, INVESTMENT, AND ABILITY TO RAISE CAPITAL

The Commission requested U.S. producers to describe any actual or anticipated negative effects of primary magnesium from China, Russia, or Ukraine on their growth, investment, ability to raise capital, or existing development and production efforts, including efforts to develop a derivative or more advanced version of the product. ***. Their comments are as follows:

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