MAGNESIUM FROM CANADA

Determination of the Commission in Investigation No. 701–TA–309 (Final) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation

Determination of the Commission in Investigation No. 731–TA–528 (Final) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation

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UNITED STATES INTERNATIONAL TRADE COMMISSION

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Determinations and Views of the Commission

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigations Nos. 701-TA-309 and 731-TA-528 (Final)

MAGNESIUM FROM CANADA

Determinations

On the basis of the record[1] developed in the subject investigations, the Commission determines,[2] pursuant to sections 705(b) and 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1671d(b) and 1673d(b)) (the Act), that an industry in the United States is materially injured by reason of imports from Canada of magnesium,[3] provided for in subheadings 8104.11.00 and 8104.19.00 of the Harmonized Tariff Schedule of the United States, that have been 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).

Background

The Commission instituted countervailing duty investigation No. 701-TA-309 (Final), effective December 4, 1991, following a preliminary determination by the Department of Commerce that imports of pure and alloy magnesium from Canada were being subsidized within the meaning of section 703(b) of the Act (19 U.S.C. § 1671b(b)). The Commission instituted antidumping investigation

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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 Brunsdale dissenting with respect to ultra-pure magnesium.

[3] 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 magnesium contains less than 99.8 percent 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. Excluded from the scope of the investigations are secondary magnesium and granular magnesium.

No. 731-TA-528 (Final), effective February 18, 1992, following a preliminary determination by the Department of Commerce that imports of pure and alloy magnesium from Canada were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the institution of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notices in the Federal Register of December 26, 1992 (56 F.R. 66875), March 4, 1992 (57 F.R. 7790), and May 20, 1992 (57 F.R. 21429). The hearing was held in Washington, DC, on July 14, 1992, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF CHAIRMAN NEWQUIST, VICE CHAIRMAN WATSON, COMMISSIONER CRAWFORD AND COMMISSIONER NUZUM[1] [2]

Based on the record in these final investigations, we determine that an industry in the United States is materially injured by reason of imports of magnesium from Canada that have been found by the Department of Commerce (Commerce) to be sold at less than fair value (LTFV). We also determine that an industry in the United States is materially injured by reason of imports of magnesium from Canada that have been found by Commerce to be subsidized.[3] Further, we determine that critical circumstances do not exist with respect to LTFV imports of pure magnesium.

I. Like Product and Domestic Industry

In determining whether an industry in the United States is materially injured or is 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 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 . . . ."[4] In

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[1] Commissioner Rohr concurs in the Commission's determination, but bases his determination on his finding that there are two domestic industries. See his Views.

[2] Commissioner Brunsdale finds three domestic industries, and concurs with the Commission's determination of material injury regarding the domestic industries producing commodity-grade pure magnesium and alloy magnesium. She dissents with respect to the domestic industry producing ultra-pure magnesium. See her Concurring and Dissenting Views. She joins in many aspects of this opinion (as she notes below). Were there one like product, she would join in all aspects of the majority's opinion.

[3] Material retardation of the establishment of an industry is not an issue in this investigation and will not be discussed further.

[4] 19 U.S.C. § 1677(4)(A).

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 . . . ."[5]

The imported products subject to these investigations are pure magnesium and magnesium alloys, collectively referred to as primary magnesium.[6] Commerce has defined the imported products found to be subsidized and sold at LTFV into two classes or kinds of merchandise--pure and alloy magnesium--and has described these products as follows:

> Pure magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Magnesium alloys contain less than 99.8 percent magnesium by weight, with magnesium being the largest metallic element in the alloy by weight, and are sold in various ingot and billet forms and sizes.[7]

The Commission has considered whether there is one like product consisting of all primary magnesium or two like products coextensive with the two classes or kinds of merchandise. Petitioner, Magnesium Corporation of America (MagCorp), argues that there is a single like product--primary magnesium, while respondents, Norsk Hydro Canada[8] and the Government of Quebec

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[5] 19 U.S.C. § 1677(10).

[6] Secondary magnesium, which is magnesium recovered from secondary sources such as scrap and recycled products, is not within the scope of the investigation. See Report at I-15. None of the domestic producers of primary magnesium produce secondary magnesium, and inclusion of secondary magnesium in the like product is not an issue in these investigations. See Magnesium from Canada and Norway, Invs. Nos. 701-TA-309 and 731-TA-528 and 529 (Preliminary), USITC 2443 (October 1991).

[7] Final Affirmative Countervailing Duty Determinations: Pure Magnesium and Alloy Magnesium From Canada, 57 Fed. Reg. 30946, 30947-48 (July 13, 1992). See also Pure and Alloy Magnesium from Canada: Final Affirmative Determination; Rescission of Investigation and Partial Dismissal of Petition, 57 Fed. Reg. 30939, 30940 (July 13, 1992).

[8] Norsk Hydro Canada is the largest Canadian producer of primary magnesium and is the only Canadian producer covered by the dumping and subsidy determinations of the Commerce Department. Thus, for the purposes of these investigations, imports from Canada are the same as imports from Norsk Hydro Canada.

(Quebec), argue that pure magnesium and magnesium alloy should be treated as separate like products.

The Commission is not bound in its like product determination by Commerce's class or kind determinations. As the Court of International Trade has held, "[i]t is settled law that the ITC's like product determination is separate and distinct from the [Commerce's] determination of the class or kind of merchandise."[9]

The Commission's decision regarding the appropriate like product is essentially a factual determination, and the Commission applies the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[10] The Commission disregards minor variations between the articles subject to an investigation and generally looks for clear dividing lines among possible like products.[11] Based upon our analysis of the relevant

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[9] Torrington Co. v. United States, 747 F. Supp. 744, 748, aff'd 938 F. 2d 1278 (Fed. Cir. 1991). On the basis of its own record, Commerce defines the imports subject to investigation and determines whether they consist of one or more classes or kinds of merchandise. Commerce bases its class or kind determination on the criteria of Diversified Products Corp. v. United States, 572 F. Supp. 883 (Ct. Int'l Trade 1983), in which demand and marketing factors predominate. The Commission's like product criteria focus on both supply and demand factors applied to the information available in its record. The possibility of inconsistent product determinations by the Commission and Commerce is "built into the law." Algoma Steel Corp. v. United States, 688 F. Supp. 639, 642 (Ct. Int'l Trade 1988), aff'd 865 F.2d 240 (Fed. Cir. 1989), cert. denied 109 S. Ct. 3244 (1989).

[10] See Calabrian Corp. v. United States, slip. op. 92-69 (Ct. Int'l Trade, May 13, 1992); Torrington, 747 F. Supp. at 749 n.3 (Ct. Int'l Trade 1990), aff'd 938 F.2d 1278 (Fed. Cir. 1991). Factors the Commission considers in defining the like product include: (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, where appropriate, (6) price. No single factor is dispositive, and the Commission may consider other factors it deems relevant based upon the facts of a particular investigation. Torrington, 747 F. Supp. at 749.

[11] See S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

criteria, we have determined that for imports of both pure and alloy magnesium there is one like product consisting of all primary magnesium.

Pure and alloy magnesium share a number of essential physical characteristics. Both products contain at least 90 percent magnesium.[12] 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, and strong metal.[13] For example, pure magnesium is used in aluminum alloys to increase hardness and corrosion resistance,[14] while magnesium alloys similarly impart these and other properties.[15] Further, all primary magnesium is packaged, handled and shipped following the same regulations and requirements.[16]

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.[17] 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.[18] Until the electrolytic or silicothermic reduction of the magnesium is completed, the manufacturing processes for both alloy and pure magnesium

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[12] Report at I-6.

[13] Id.

[14] Report at I-6, n. 16.

[15] Report at I-6.

[16] Id.

[17] Magnesium chloride can be derived in several ways. See Report at I-8-9.

[18] Report at I-6. For a discussion of these various processes, see Report at I-9. The vast majority of U.S. production and Canadian production is by the electrolytic process.

are identical.[19] Production of alloy magnesium entails the additional step of extracting impurities from the pure magnesium and adding alloying agents such as aluminum and zinc.[20] The alloying process adds little value to pure magnesium.[21]

The companies that produce both pure and alloy magnesium use the same machinery, equipment and employees for both.[22] Although separate casting lines have been used for pure and alloy magnesium, both types can be produced on the same line if necessary.[23] In those facilities that produce both types of magnesium, the same production workers usually work on both lines.[24] Switching between pure and alloy involves moving some workers from one casting line to another and changing the metal scheduling.[25]

Pure and alloy magnesium are distributed in similar channels. Both are mainly sold by the primary magnesium producers directly to end-users.[26] Finally, the price relationship between pure and alloy magnesium suggests that they constitute one like product. While prices for the two products differ based on 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.[27]

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[19] Report at I-12.

[20] Report at I-12, n. 30.

[21] Petitioner's posthearing brief, Answer to Commissioner Brunsdale's Question 7; Report at I-14, n. 32.

[22] Report at I-14. The two companies accounting for the vast majority of U.S. primary magnesium production produce both pure and alloy magnesium.

[23] Id.

[24] Report at I-12.

[25] Id.

[26] Report at I-31.

[27] See Report at I-14.

We recognize that pure and alloy magnesium are not generally interchangeable or employed for common uses, and that these factors reflect the customers' perception of the products.[28] Some purchasers who traditionally use pure magnesium for desulfurization also use alloy, however.[29] In addition, interchangeability is somewhat limited even within those two categories. For example, purchasers of ultra-pure magnesium generally do not use commodity-grade pure magnesium due to its various impurities.[30] Likewise, variations in the amounts of additional metals contained in alloy magnesium result in different magnesium products among which interchangeability is limited.[31]

The Commission previously has addressed the difficulty of finding multiple like products based upon various distinctive end uses for a myriad of products.[32] In PET Film, as in these investigations, the various products shared many of the same physical characteristics, but each served its own specific end use and could not be interchanged with another type of PET film. The Commission found that the lack of interchangeability among the numerous

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[28] See Report at I-6-7. 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, 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.

[29] Report at I-26 (Table 6). The exact data supporting this finding are business proprietary.

[30] Report at I-14.

[31] See Report at I-8, n. 18.

[32] Polyethylene Terephthalate Film, Sheet, and Strip from Japan and the Republic of Korea (PET Film), Invs. Nos. 731-TA-458 and 459 (Final), USITC Pub. 2383 (May 1991).

types of PET film was outweighed by the similarities in physical characteristics and production processes.

Likewise, in this investigation, we find that the commonality of production facilities, machinery, processes and employees, the close similarity in channels of distribution, and the sharing of the same predominant component and its essential physical characteristics outweigh other factors and support one like product. Accordingly, we find that there is one like product consisting of all primary magnesium. Concomitantly, we define the domestic industry to consist of all primary magnesium producers.[33]

II. Condition of the Domestic Industry

In determining whether an industry is materially injured by reason of LTFV and subsidized imports, the Commission considers "all relevant economic factors which have a bearing on the state of the industry in the United States . . . ."[34] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investments, ability to raise capital, and research and development.[35] No single factor is determinative, and the Commission considers all relevant factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[36]

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

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[33] We note that, even if we had found two like products, and therefore, two domestic industries, it would not have changed our determinations in these investigations.

[34] See 19 U.S.C. § 1677(7)(C)(iii).

[35] Id.

[36] Id.

used, such as aluminum alloys and automobile parts. 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.

Second, the cost of rebuilding electrolytic cells is so high that producers must try to keep the cells in constant operation.[37] Thus, to be cost-effective, producers seek to maintain continuous and steady production of primary magnesium.

Third, the subject imports and the like product are close substitutes in this market. Primary magnesium is subject to strict industry purity and content standards. Both domestic and imported pure magnesium must meet the American Society for Testing and Materials (ASTM) specifications for chemical and physical properties.[38] Similarly, both domestic and imported alloy magnesium must meet the ASTM specifications, particularly with regard to chemical content.[39] These specifications limit the differences between subject imports and the domestic product. In fact, purchasers reported few differences between the domestic and the imported product.

Fourth, the market for primary magnesium is very price competitive. Most contracts for sales of primary magnesium in the U.S. market contain "meet-or-release" clauses.[40] These clauses require suppliers to meet the price of competitors or to release the purchaser from the contract. Even in

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[37] Transcript of Hearing (July 14, 1992) (Tr.) at 37-38.

[38] See Economic Memorandum EC-P-056 (August 5, 1992) at 20.

[39] See Economic Memorandum at 24 and Norsk Hydro Canada's prehearing brief at Exhibit 3.

[40] Report at I-73; Economic Memorandum at 29.

the absence of specific contractual provisions, prices charged by one producer follow price changes by other producers.

In the context of these conditions of competition,[41] we next examine the relevant economic factors which have a bearing on the state of the industry. Apparent U.S. consumption of primary magnesium was relatively stable from 1989 to 1990 and decreased 3.5 percent from 1990 to 1991.[42] Despite stable U.S. consumption of primary magnesium, U.S. producers' shipments declined substantially, falling from 97,526 metric tons in 1989 to 79,193 metric tons in 1991.[43]

Domestic production also declined, from 146,675 metric tons in 1989 to 129,152 metric tons in 1991.[44] While capacity remained steady during this period, capacity utilization fell sharply from 88.1 percent in 1989 to 77.6 percent in 1991.[45] At the same time, inventories grew from 20,825 metric tons to 27,487 metric tons.[46] Inventories increased in both absolute terms and relative to production. In 1989, inventories equaled 14.2 percent of annual production, increasing to more than 21 percent of annual production in 1991.[47]

Employment of production and related workers in the primary magnesium industry fell slightly during the period of investigation, from 1,822 workers

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[41] We also note the global nature of the primary magnesium market and that the U.S. industry has developed a large and stable export market for its products. See Report at I-39 (Table 12 and Figure 9) and I-41.

[42] Report at I-23.

[43] Report at I-24 (Table 5).

[44] Report at I-36 (Table 11), as amended by memorandum INV-P-138 (August 7, 1992).

[45] Id.

[46] Report at I-42 (Table 14).

[47] Id.

to 1,660 workers.[48] Hours worked also declined, as well as yearly salaries.[49] Unit labor costs increased, while productivity declined.[50]

The domestic industry reported poor financial performance.[51] Although the financial data of the industry are confidential, they show steady and substantial declines in operating income margins, gross profit, and net sales.[52] There was little change in the industry's overall capital expenditures and research and development expenses from the beginning to the end of the period of investigation.[53] [54]

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[48] Report at I-43 (Table 15).

[49] Id.

[50] Id.

[51] One of the three U.S. producers, Northwest Alloys, exited the open market at the end of the period of investigation, citing depressed conditions in both domestic and foreign markets. Report at I-30. With this action, Northwest announced cutbacks of 50 percent in both capacity and personnel. Id.

In 1992, Northwest's employees were certified for trade adjustment assistance from the Department of Labor, with Northwest citing the flooding of world markets by Russian products and the recession and oversupply of magnesium in the U.S. market. Report at I-5-6. While we are careful not to draw any unsubstantiated conclusions from this grant of assistance, we do note that, in 1991, the unfairly traded imports from Canada accounted for the vast majority of total imports of primary magnesium into the United States. Id.

[52] Report at I-47 (Table 19). In considering the financial performance of the industry, we have considered only the information pertaining to actual magnesium operations. Thus, we did not consider extraordinary expenses such as environmental expenditures or the costs of one company's leveraged buyout.

[53] Report at I-54 (Tables 32 and 33). We note that, even if we had found two separate industries as proposed by respondents, the conditions in the individual industries comprised of pure magnesium and alloy magnesium producers are nearly the same as those for the industry comprised of all primary magnesium producers. See Report at Appendix C.

[54] Based on the foregoing performance indicators, Chairman Newquist finds that the domestic industry producing primary magnesium is experiencing material injury.

III. 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 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 . . . .[55]

In making this determination, the Commission may consider "such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports."[56] Although we may consider information that indicates that injury to the industry is caused by factors other than the unfairly traded imports, we do not weigh causes.[57] [58] [59]

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[55] 19 U.S.C. § 1677(7)(B)(i).

[56] 19 U.S.C. § 1677(7)(B)(ii).

[57] Chairman Newquist and Commissioner Nuzum further note that the Commission need not determine that imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249, 96th Cong., 1st Sess. 57 and 74 (1979). Rather, a finding that imports are a cause of material injury is sufficient. 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).

[58] Vice Chairman Watson notes that the courts have interpreted the statutory requirement that the Commission consider whether there is material injury "by reason of" the subject imports in a number of different ways. Compare, e.g., United Engineering & Forging v. United States, 779 F. Supp. 1375, 1391 (Ct. Int'l Trade 1991) ("rather it must determine whether unfairly-traded imports are contributing to such injury to the domestic industry. Such imports, therefore need not be the only cause of harm to the domestic industry." (citations omitted)) with Metallverken Nederland B.V. v. United States, 728 F. Supp. 730, 741 (Ct. Int'l Trade 1989) (affirming a determination by two Commissioners that "the imports were a cause of material

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For the reasons discussed below, we find that there is material injury to the domestic industry by reason of LTFV and subsidized imports of magnesium from Canada. We note that much of the information on which we base our decision is business proprietary and accordingly, our discussion necessarily must be in general terms.

The volume of LTFV and subsidized imports, measured by both quantity and value, increased manyfold during the period of investigation.[60] Although the

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[58] (...continued)
injury") and USX Corporation v. United States, 682 F. Supp. 60, 67 (Ct. Int'l Trade 1988) ("any causation analysis must have at its core, the issue of whether the imports at issue cause, in a non de minimis manner, the material injury to the industry. . .").

Accordingly, Vice Chairman Watson has decided to adhere to the standard articulated by Congress in the legislative history of the pertinent provisions, which states that the Commission must satisfy itself that, in light of all the information presented, there is a "sufficient causal link between the less-than-fair-value imports and the requisite injury." S. Rep. No. 249, 96th Cong., 1st Sess. 75 (1979).

[59] Commissioner Crawford notes that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of" the unfairly traded imports. Many, if not most domestic industries are subject to injury from more than one economic factor. Of these factors, there may be more than one that independently is causing material injury to the domestic industry. It is assumed in the legislative history that the "ITC will consider information which indicates that harm is caused by factors other than the less-than-fair-value imports." S. Rep. No. 249 at 75. However, the legislative history makes it clear that the Commission is not to weigh or prioritize the factors that are independently causing material injury. Id. at 74; H.R. Rep. No. 317 at 47. The Commission is not to determine if the unfairly traded imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249 at 74. Rather, it is to determine whether any injury "by reason of" the unfairly traded imports is material. That is, the Commission must determine if the subject imports are causing material injury to the domestic industry. "When determining the effect of imports on the domestic industry, the Commission must consider all relevant factors that can demonstrate if unfairly traded imports are materially injuring the domestic industry." S. Rep. No. 71, 100th Cong., 1st Sess. 116 (1987).

[60] Report at I-62 (Table 38). Quebec argues that the Commission should not "cross cumulate" dumped and subsidized imports, but should instead render separate determinations regarding the effects of dumped and subsidized imports. Posthearing brief of Quebec at 6-13. Quebec misinterprets the
(continued...)

largest increase occurred from 1989 to 1990, the volume of subject imports increased significantly from 1990 to 1991. Market penetration of subject imports, by both quantity and value, also increased dramatically during the period of investigation.[61] These increases in volume and market share occurred both with respect to all primary magnesium and with respect to pure and alloy magnesium individually.

Respondents argue that the subject imports from Canada increased because the domestic industry was unable to supply the market in 1988, during a period of shortage caused by natural disasters and labor problems. That explanation does not, however, fully account for the large increase in subject imports from 1989 to 1990, or for the continued significant increase in 1991. Similarly, respondents argue that the increased shipments of subject imports from Canada merely replaced shipments of magnesium from Norway. This representation is not supported by the record. In fact, imports of Canadian

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[60] (...continued)
statutory cumulation provision, Commission practice, and court precedent in making this suggestion. The Federal Circuit has held that cumulation of dumped imports from one country with subsidized imports from another country is required by the mandatory cumulation provision. Bingham & Taylor v. United States, 815 F.2d 1482 (Fed. Cir. 1987).

Quebec attempts to distinguish Bingham & Taylor from the instant investigations based upon the fact that Bingham & Taylor addressed cumulation of imports from several countries, whereas all imports in these investigations are from one country. The mandatory cumulation provision, by its own terms, applies only to investigations involving imports from two or more countries. 19 U.S.C. §1677(7)(c)(iv). In light of the statutory mandate that the Commission cumulate subsidized and dumped imports from different countries, it follows a fortiori that the Commission should aggregate the volume and price effects of dumped and subsidized imports all of which are from one country. 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), 114-17 (Views of Chairman Brunsdale), 182-183 (Views of Vice Chairman Cass).

[61] Report at I-65 (Table 39).

magnesium greatly exceeded the volume of imports previously imported from Norway.

Coincident with the large increase in unfairly traded imports, U.S. producers' domestic shipments declined steadily, by both quantity and value.[62] Correspondingly, U.S. producers' market share also declined.[63]

At the same time that volume and market share of subject imports increased, prices for both U.S.- and Canadian-produced commodity-grade pure and alloy magnesium steadily declined.[64] As noted above, the high degree of substitutability between U.S. and Canadian magnesium is a particularly significant condition of competition in the primary magnesium industry. Most purchasers of pure and alloy magnesium found few, if any, differences between the U.S. and Canadian products.[65] Moreover, the U.S. and Canadian products sell at similar prices.[66] Price changes by one firm are often followed by equivalent changes by other producers, in some instances due to contractual meet-or-release clauses.[67] Accordingly, the effect of subject import prices on U.S. prices is significant.

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[62] Report at I-65 (Table 39).

[63] Id.

[64] Report at I-76-78, 87 (Tables 43-45, 47-48). The data for price comparisons are mixed and irregular. In light of the frequency of price changes from one sale to the next, these price comparisons are not particularly useful. See Economic Memorandum at 8.

[65] Economic Memorandum at 21-23, 24-28. Respondents argued that non-price factors, most particularly the existence of Norsk Hydro Canada's scrap repurchase program, make the products less substitutable and account for the increase in Canadian sales. However, these programs are not distinctive to Norsk Hydro Canada, given that the U.S. producers have instituted similar programs. Moreover, these types of programs simply add to the overall price competition.

[66] Economic Memorandum at 22.

[67] Economic Memorandum at 22-23, 26-27.

Because of the prohibitive costs of recharging the electrolytic cells, U.S. producers are willing to cut prices to maintain volume, in order to maintain production.[68] However, because the demand for primary magnesium is relatively inelastic,[69] price reductions do not increase sales. Against this background, the substantial increases in Norsk Hydro Canada's share of the market placed significant pressure on the domestic producers to lower their prices and to build up their inventories. In addition, the U.S. plants producing primary magnesium are dedicated to primary magnesium production, with little flexibility to produce other products. Hence, price declines will cause direct loss in profits, as demonstrated by the data collected in these investigations.

Furthermore, in considering the impact of the subject imports on the U.S. operations of domestic producers, the nature of the subsidies here is especially significant. These subsidies include exemption from payment of water bills and preferential electric rates, the very types of subsidies that are likely to reduce Norsk Hydro Canada's costs of production. Given the exceptionally high cost of energy in the magnesium production process,[70] the subsidies received by Norsk Hydro Canada clearly enhance its competitive position in relation to the U.S. industry.

Given the high degree of substitutability among subject imports and the like product, the rapid and dramatic increase in unfairly traded imports, and the concurrent declines in domestic market share and prices, we determine that

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[68] Tr. 37-38.

[69] See Economic Memorandum at 31-34.

[70] See Report at I-49 (Table 21) and I-53 (Table 29).

the domestic industry producing primary magnesium is materially injured by reason of the subject imports.[71]

IV. Critical Circumstances

When Commerce makes an affirmative determination with respect to critical circumstances, the Commission is required to determine, for each domestic industry for which it makes an affirmative injury determination, "whether retroactive imposition of antidumping duties on the merchandise appears necessary to prevent recurrence of material injury that was caused by massive imports of the merchandise over a relatively short period of time."[72] The statute directs the Commission to evaluate whether "the effectiveness of the antidumping duty order would be materially impaired if retroactive duties were not imposed."[73] An affirmative critical circumstances determination by the Commission results in the retroactive application of the antidumping order for a period 90 days prior to the suspension of liquidation.[74]

The purposes of the critical circumstances provision are set out in the legislative history. The Ways and Means Committee Report to the Trade Agreements Act of 1979 states that the provision is designed to: (1) provide prompt relief for the domestic industry suffering from large volumes of imports or a surge in imports over a short period; and (2) deter exporters from attempting to circumvent the antidumping statute.[75] A surge in imports

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[71] Because subject imports and the like product are close substitutes, the price of unfairly traded imports plays a crucial role in purchasing decisions. Therefore, Commissioners Brunsdale and Crawford conclude that the domestic industry would have been materially better off if the subject imports had been fairly traded.

[72] 19 U.S.C. § 1673d(b)(4)(A)(i).

[73] 19 U.S.C. § 1673d(b)(4)(A)(ii).

[74] 19 U.S.C. § 1673d(c)(4).

[75] See H. Rep. No. 317, 96th Cong., 1st Sess. 63 (1979).

can occur as a result of an attempt to circumvent the antidumping statute immediately after the initiation of an investigation and, where Commerce finds critical circumstances, we would be required to consider that surge. The adverse impact of such a surge can continue to affect the domestic industry during and after the 90-day period during which retroactive duties can be imposed. If, however, the surge itself dissipates before that 90-day period begins, retroactive imposition of duties cannot meaningfully "prevent recurrence of material injury" resulting from that surge since the duties cannot reach those imports, and, therefore, cannot affect the impact of those LTFV imports on the domestic industry.

Commerce has found that critical circumstances exist with respect to LTFV imports of pure magnesium only.[76] In reaching its determination, Commerce compared the volume of imports from a three-month period beginning with the month the petition was filed (September through November 1991) with the three-month period prior to the filing of the petition (June through August 1991), and found that there had been a "massive" increase in imports. Since Commerce's preliminary dumping determination was issued on February 20, 1992, the 90-day period for which retroactive duties may be collected begins on November 22, 1991. Thus, the 90-day period which Commerce examined overlaps only minimally with the period for which retroactive duties could be imposed.

The massive increase in imports found by Commerce occurred in October and November of 1991, immediately after the initiation of the investigation.[77]

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[76] 57 Fed. Reg. 30941 (July 13, 1992) (Report at A-12).

[77] Commissioner Crawford notes that both GATT and U.S. law impose a clear and definite 90-day limit on the retroactive imposition of duties. Imports (continued...)

We note that the volume of imports in these two months was considerably higher than in any other month between January 1991 and April 1992.[78] Although respondents contend that the surge was not the result of an attempt to circumvent the antidumping investigation, we note that the requirements contracts used in the magnesium industry would make it very easy for purchasers to accelerate their deliveries. We note further that the importer's 1991 end-of-period inventories of pure magnesium were considerably higher than in 1990.[79] In light of these facts, we do not find respondents' assertions very credible.[80]

Respondents' intentions notwithstanding, however, most of that surge in imports occurred prior to the date to which retroactive application of suspension of liquidation--and imposition of duties--would apply. Thus, retroactive imposition and collection of duties would not reach most of the imports of pure magnesium that accounted for the post-petition surge. As such, retroactive action would be of marginal, if any, value in preventing the recurrence of the material injury caused by that surge. Accordingly, based on the circumstances in this investigation, we find that the effectiveness of the antidumping order on pure magnesium will not be materially impaired by declining to impose retroactive duties on the LTFV imports of pure magnesium.

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[77] (...continued)
entering the United States prior to the 90-day period are expressly outside the terms of the GATT Code and the statute.

[78] Report at I-21.

[79] Report at I-57.

[80] Commissioner Crawford disagrees with the implicit assumption that accelerating exports to the United States can be accomplished without attendant economic costs.

CONCLUSION

Based on our analysis of the record and statutory factors, we conclude that the domestic industry is materially injured by reason of LTFV and subsidized imports of magnesium from Canada.

Based on the record[1] developed in these investigations, I determine, pursuant to section 733(a) of the Tariff Act of 1930 (the Act)[2], that industries in the United States are materially injured by reason of imports from Canada of pure magnesium and alloy magnesium, that have been found by the Department of Commerce (Commerce) to be subsidized and to be sold in the United States at less than fair value (LTFV).[3] I further find that critical circumstances, under section 735 (b)(4)(A) of the Act, do not exist with regard to the subject imports.

I. 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 an examination of whether a domestic industry is being materially injured of threatened with material injury by reason of LTFV imports and subsidized 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."[4] 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."[5]

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

[2] 19 U.S.C. § 1673b (a)

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

[4] 19 U.S.C. § 1677 (4)(A).

[5] 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 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 e.g., Asociacion

A. Product Descriptions

Commerce has divided the imported articles subject to these investigations found to be subsidized and sold at LTFV into two classes or kinds of merchandise--pure magnesium and alloy magnesium--and has described these products as follows:

> Pure magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Alloy magnesium contains less than 99.8 percent 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.[6] These products 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 these investigations are secondary magnesium and granular magnesium.

B. Like Product Analyses

In these final investigations, I have considered whether there is one like product consisting of all primary magnesium or whether there are two like products, pure magnesium and magnesium alloys. Petitioner, Magnesium Corporation of America (MagCorp), argues that there is a single like product--primary magnesium, while respondents, Norsk Hydro Canada[7] and the Government of Quebec (Quebec), argue that pure magnesium and magnesium alloy should be treated as separate like products.

I note that I am not bound in making my like product determination by Commerce's class or kind determinations.[8] As the Court of International Trade (CIT) has held, "[i]t is settled law that the ITC's like product determination is separate and distinct from the

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).

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

[7] Norsk Hydro is the largest Canadian producer and is the only Canadian producer covered by the dumping and subsidy determination of the Commerce Department. Thus, for the purposes of these investigations, imports from Canada are the same as imports from Norsk Hydro Canada.

[8] See, e.g., Certain High-Information Content Flat Panel Displays and Display Glass Therefor from Japan, Inv. No. 731-TA-469, USITC Pub. No. 2413 (Aug. 1991).

[Commerce's] determination of the class or kind of merchandise."[9]

For the reasons stated below, I find that there are two products like imported pure magnesium and alloy magnesium from Canada, domestically-produced pure magnesium and domestically-produced alloy magnesium. Pure magnesium and alloy magnesium differ in a number of physical characteristics and properties. Pure magnesium contains at least 99.8 percent magnesium by weight while alloy magnesium contains lower concentrations of magnesium, with the most popular grade of alloy (AZ91D) containing approximately 90 percent magnesium and 9 percent aluminum. The presence of additional metals in alloy magnesium, such as aluminum and zinc, impart extra strength, ductility, workability, corrosion resistance, low density, and castability.[10] Because pure magnesium does not contain alloying metals, it lacks these special qualities.

Moreover, these differing physical characteristics adapt pure and alloy magnesium for separate end uses. 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.[11] Magnesium alloys on the other hand are primarily used by die, sand, and mold casters that take advantage of its structural properties to produce structural products such as automobile components, bicycles,

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[9] Torrington Co. v. United States, 747 F. Supp. 744, 748, aff'd 938 F. 2d 1278 (Fed. Cir. 1991). On the basis of its own record, Commerce defines the imports subject to investigation and determines whether they consist of one or more classes or kinds of merchandise. Commerce bases its class or kind determination on the criteria of Diversified Products Corp. v. United States, 572 F. Supp. 883 (Ct. Int'l Trade 1983), in which demand and marketing factors predominate. The Commission's like product criteria focus on both supply and demand factors applied to the information available in its record. The possibility of inconsistent product determinations by the Commission and Commerce is "built into the law." Algoma Steel Corp. v. United States, 688 F. Supp. 639, 642 (Ct. Int'l Trade 1988), aff'd 865 F.2d 240 (Fed. Cir. 1989), cert. denied 109 S. Ct. 3244 (1989).

[10] Staff report at I-6

[11] Domestic producers did ship alloy magnesium to steel desulfurizers in 1991, however, its percentage of total domestic producers' shipments was minimal. There is no information in the record on shipments of alloy magnesium to desulfurizers in 1992. See staff report at I-26 (Table 6). I would note that this information is not sufficient to alter my decision.

power tools, computer chassis, and other products.[12] Thus, pure and alloy magnesium clearly have two distinct end uses. Pure magnesium is an alloying agent and chemical reagent whereas alloy magnesium, on the other hand, is used for its structural properties to produce structural products.

Pure and alloy magnesium are distributed through similar but not identical channels of distribution. Whereas alloy magnesium is wholly distributed to end users, pure magnesium is distributed to both distributors and end users, with end users receiving the majority.[13]

There is some overlap in the production process for both pure and alloy magnesium, especially for MagCorp. [14] However, evidence in the record indicates that not all producers of primary magnesium can produce both pure and alloy magnesium without significant modifications to production processes.[15] Two of the three U.S. producers produce pure and alloy magnesium on separate production lines or plants. There is a not insignificant value added to the production of alloy magnesium from pure magnesium.[16]

On the marketing side, it is generally true that most customers who purchase pure magnesium do not use magnesium alloy as a substitute and vice versa. Due to the general end uses of the two products, the class of customers who purchase pure magnesium are different from the class which purchase magnesium alloy.[17] For the majority of applications, pure magnesium and alloy magnesium are not interchangeable with regard to their general end uses, as discussed previously.

Finally, the price relationship between pure and alloy magnesium supports the characterization of these products as two like products. Prices for the two products differ

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[12] Staff Report at I-6-I-7.

[13] Staff report at I-31.

[14] Staff Report at I-12.

[15] Staff report at I-12.

[16] Posthearing Brief of Petitioner, Answer to Commissioner Brunsdale's Question 7.

[17] Staff report at I-6-I-7.

based on differences in costs and market demand, although the prices of both pure and alloy magnesium reflect the cost of the magnesium contained in both types of products.[18] Moreover, because of different end use markets, the demands for pure and alloy magnesium have followed different trends, with consumption of alloy magnesium rising from 1989 to 1991, while consumption of pure magnesium fell over the same period.[19]

In view of the different physical characteristics, distinctly different end uses, customer perceptions, and limited interchangeability, I define the like products to be both pure magnesium and alloy magnesium for purposes of these final investigations. I analyzed the argument of multiple like products within the separate categories of pure and alloy magnesium. I found the arguments to be unconvincing on the basis that their strongest support comes from the end uses each serve. The general end uses for pure and alloy magnesium are for chemical applications and structural applications, respectively. The various types of products within the two like product groups fall within the parameters of this determination, and since other factors relating to the two like products and their proposed sub-groups are the same, I am compelled to find only two like products, pure and alloy magnesium.

C. Domestic Industry

Section 771(4)(A) of the Tariff Act of 1930 defines domestic 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.[20]

Having found two like products, I find two domestic industries, one producing pure magnesium and the other producing alloy magnesium.

II. Condition of the Industries

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[18]Report at I-14.

[19]See Report at I-77-78.

[20] 19 U.S.C. § 1677(4)(A).

In assessing whether there is material injury to the domestic industries, the Commission is instructed to consider "all relevant economic factors which have a bearing on the state of the industry in the United States . . . ."[21] 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.[22] No single factor is dispositive and in each investigation, I consider the particular nature of the industry under investigation[23] in the context of "the business cycle and conditions of competition that are distinctive to the affected industry."[24] Before describing the condition of the industries, I note that much of the information on which I base my decision is business proprietary, and my discussion of the condition of the industries must necessarily be general in nature.

Pure magnesium

Apparent domestic consumption of pure magnesium remained relatively constant, declining slightly over the period of investigation. Despite relatively steady demand, domestic shipments declined at a much greater rate than that of consumption.[25]

Domestic production has declined at a rapid rate over the period of investigation and because capacity has remained constant, capacity utilization has dramatically fallen.[26] Inventories grew in absolute terms from 1989 to 1991 and also in relation to domestic shipments over the same period.[27]

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[21] 19 U.S.C. § 1677(7)(C)(iii).

[22] See 19 U.S.C. § 1677(7)(C)(iii).

[23] See 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.

[24] 19 U.S.C. § 1677(7)(C)(iii).

[25] Staff report at I-24-I-25.

[26] Staff report at I-36.

[27] Staff report I-42.

Employment figures, including, number of production worked, number of hours worked, and productivity all declined from 1989 to 1991. Total compensation was relatively unchanged over the same period.[28]

The pure magnesium domestic industry reported declining financial performance throughout the period of investigation. The financial performance indicators such as, net sales, operating income, operation margin, gross profit, and gross profit margin all show steady and substantial declines.[29] Capital investment increased slightly from 1989 to 1991, while research and development investment remained relatively constant.[30]

Based on the foregoing performance indicators, I find that the pure magnesium industry is currently experiencing material injury.

Alloy magnesium

The indicators of the condition of the domestic industry producing alloy magnesium also showed declines, though not as dramatic as the declines in the pure magnesium industry. Apparent domestic consumption of alloy magnesium has fluctuated over the period of investigation, slightly declining from 1989 to 1991. Domestic shipments have followed a similar pattern, ending the period of investigation with a very slight decline from the beginning of the investigation.[31]

Domestic production, however, has declined from 1989 to 1991. Capacity has remained stable, but capacity utilization has declined sharply over the period of investigation.[32] Inventories rose dramatically from 1989 to 1991 and also rose in relation to domestic shipments over the same period.[33]

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[28] Staff report at I-43.

[29] Report at I-51.

[30] Staff report at I-54-I-55.

[31] Staff report at I-24-25 and I-38-39.

[32] Staff report at I-36.

[33] Staff report at I-42.

Employment figures, including number of production related workers, number of hours worked, and total compensation all declined over the period of investigation. Productivity increased only slightly.[34]

The alloy magnesium domestic industry reported declining financial performance throughout the period of investigation. Indicators such as net sales, operating income, operating margin, gross profit, and gross profit margin all declined substantially from 1989 to 1991.[35] Capital investment and research and development investment both declined over the period of investigation, albeit slightly.[36]

Based on the foregoing performance indicators, I find that the alloy magnesium industry is currently experiencing material injury.

III. Material Injury by Reason of LTFV Imports

In determining whether the domestic industries are materially injured by reason of the imports under investigation, 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 . . . .[37]

In making this determination, the Commission may consider "such other economic factors as are relevant to the determination . . . ."[38] Although I may consider information that indicates that injury to the industries is caused by factors other than the unfairly traded

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[34] Staff report at C-3.

[35] Staff report at I-54.

[36] Staff report at I-54-I-55.

[37] 19 U.S.C. § 1677(7)(B)(i).

[38] 19 U.S.C. § 1677(7)(B)(ii).

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.[39] Rather, a finding that imports are a cause of material injury is sufficient."[40]

For reasons discussed below, I find that the industries I have already found to be materially injured, are injured by reason of LTFV and subsidized imports of pure and alloy magnesium from Canada. Again, much of the information on which I base my determination is business proprietary. Thus, my discussion of the effects of the unfairly traded imports is necessarily of a general nature.

Pure magnesium

The volume of LTFV and subsidized imports increased exponentially over the period of investigation in terms of both quantity and value.[41] [42] There has been dramatic increases in market penetration of subject imports, both by quantity and value from 1989 to 1991.[43] As I stated earlier, during this same period, domestic producers' domestic shipments and market share declined sharply.[44]

In light of the high degree of substitutability between U.S. and Canadian magnesium, this coincidence of increased Canadian imports, declines in domestic shipments of U.S.-produced magnesium, and continual declines in prices of magnesium sold in the U.S. market are particularly significant.[45] Most purchasers of pure magnesium found few, if any, differences between the U.S. and Canadian products. Moreover, the U.S. and Canadian

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

[40] 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).

[41] Staff report at I-62 (Table 38).

[42] 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).

[43] Staff report at I-67.

[44] Staff report at I-38.

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

products sell at similar prices.[46] Price changes by one firm are often followed by equivalent changes by other producers, in some instances as the result of contractual meet-or-release clauses.[47]

As the supply of magnesium in the U.S. market increased as a result of Canadian imports, prices dropped. In this market, the consistent pattern of downward price competition relative to the increase in shipments of the Canadian product points to the flood of unfairly traded imports as instrumental in the price decline and resultant injury to the U.S. industry.

Because of the prohibitive costs of recharging the electrolytic cells used to produce magnesium, the U.S. producers[48] are forced to maintain production and keep selling their product at any cost. The substantial increases in Norsk Hydro's share of the market placed significant pressure on the domestic producers to lower their prices and to keep unnecessarily building their inventories.

Moreover, in considering the impact of the subject imports on the U.S. operations of domestic producers, the nature of the subsidies here is especially significant. These subsidies include exemption from payment of water bills and preferential electric rates, the very types of subsidies that are likely to reduce Norsk Hydro's costs of production. Given the exceptionally high cost of energy in the magnesium production process,[49] the subsidies received by Norsk Hydro enhance its competitive position in relation to the U.S. industry.

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

Alloy Magnesium

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[46] Id. at 22.

[47] Id. at 22-23, 26-27.

[48] Northwest Alloys does not use the electrolytic process; it uses the silicithermic process.

[49] See Report at I-49 (Table 21) and I-53 (Table 29).

The trends in the alloy magnesium industry are similar to, but not identical to, the pure magnesium industry. The volume of LTFV and subsidized imports dramatically increased at the start of the period of investigation and then increased slightly for the remainder in terms of both quantity and value.[50]

Market penetration of subject imports, both by quantity and value, have increased dramatically from 1989 to 1991, with the bulk of the increases coming in 1990 and 1991.[51] During this same period, domestic producers' domestic shipments declined sharply as did their market share.[52]

This coincidence of increased Canadian imports, declines in domestic shipments of U.S.-produced magnesium, and continual declines in prices of magnesium sold in the U.S. market are particularly significant in light of the high degree of substitutability between U.S. and Canadian magnesium.[53] Most purchasers of alloy magnesium found few, if any, differences between the U.S. and Canadian products.[54] Moreover, the U.S. and Canadian products sell at similar prices.[55] Price changes by one firm are often followed by equivalent changes by other producers, in some instances as the result of contractual meet-or-release clauses.[56]

As the supply of magnesium in the U.S. market increased as a result of Canadian imports, prices dropped. In this market, the consistent pattern of downward price competition relative to the increase in shipments of the Canadian product shows that the rapid increase

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[50] Staff report at I-62 (Table 38).

[51] Staff report at I-68.

[52] Staff report at I-38-I-39.

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

[54] Economic Memorandum at 21-23, 24-28. Respondents argued that non-price factors, most particularly the existence of Norsk Hydro's scrap repurchase program, make the products less substitutable and account for the increase in Canadian sales. However, these programs are not distinctive to Norsk Hydro, given that the U.S. producers have instituted similar programs. Moreover, these types of scrap repurchase programs add to the price competition.

[55] Id. at 22.

[56] Id. at 22-23, 26-27.

of unfairly traded imports was instrumental in the price decline and resultant injury to the U.S. industry.

Because of the prohibitive costs of recharging the electrolytic cells, the U.S. producers[57] are forced to maintain production and keep selling their product at any cost. The substantial increases in Norsk Hydro's share of the market placed significant pressure on the domestic producers to lower their prices and to keep unnecessarily building their inventories.

Furthermore, in considering the impact of the subject imports on the U.S. operations of domestic producers, the nature of the subsidies here is especially significant. These subsidies include exemption from payment of water bills and preferential electric rates, the very types of subsidies that are likely to reduce Norsk Hydro's costs of production. Given the exceptionally high cost of energy in the magnesium production process,[58] the subsidies received by Norsk Hydro enhance its competitive position in relation to the U.S. industry.

Given the fungible nature of this market, the substantially increasing amount of unfairly traded imports, and the corresponding declines in domestic shipments, market share, and prices, I determine that the subject imports are a cause of the material injury currently being experienced by the domestic industry producing alloy magnesium.

IV. Critical Circumstances

Commerce has found that critical circumstances exist with regard to LTFV imports of pure magnesium only.[59] The massive increase in imports found by Commerce occurred in October and November of 1991, immediately after the initiation of the investigation. However, most of that increase in imports occurred prior to the date to which retroactive application of suspension of liquidation, and imposition of duties, would apply. Thus, retroactive imposition and collection of duties would not reach most of the imports of pure magnesium that accounted for the post-petition surge. As such, retroactive action would be of marginal, if any,

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[57] Northwest Alloys does not use the electrolytic process; it uses the silicothermic process.

[58] See Report at I-49 (Table 21) and I-53 (Table 29).

[59] 57 Fed. Reg. 30941 (July 13, 1992) (Report at A-12).

value in preventing the recurrence of the material injury caused by that surge. Based on the circumstances in this investigation I determine not to impose retroactive duties on the LTFV imports of pure magnesium. I do not feel that the effectiveness of the antidumping order on pure magnesium will be materially impaired by such a determination.

V. CONCLUSION

Based on my analysis of the record in these investigations and the statutory factors, I conclude that the domestic industries producing pure magnesium and alloy magnesium are materially injured by reason of LTFV and subsidized imports of pure magnesium and alloy magnesium from Canada.

CONCURRING AND DISSENTING VIEWS OF COMMISSIONER ANNE BRUNSDALE
Magnesium from Canada

Invs. Nos. 701-TA-309 and 731-TA-528 (Final)

I concur in the majority's discussion of critical circumstances and I would concur in the rest of its opinion if, as in the preliminary investigations, I had found that primary magnesium constituted one like product. I agree with the majority that, in general, the ability of a producer to switch production easily among various potential like products means that they are one like product. However, I think that a sharper analysis shows that we should find that there are three like products: pure magnesium, alloy magnesium, and ultra-pure magnesium. Looking separately at each of these, I also find that a domestic industry is being materially injured by dumped and subsidized imports of pure magnesium, and by subsidized imports of alloy magnesium. I do not, however, find that the domestic ultra-pure magnesium industry is being materially injured by dumped or subsidized imports.

I. LIKE PRODUCT

In the preliminary investigations, I found that primary magnesium was one like product. My reasoning closely mirrored the majority's:

> [I]f dumping or subsidies were to depress the price of pure magnesium, but not magnesium alloy, the price and volume effects would easily spill over into the alloy market as producers reduced sales of pure magnesium and used more of their output to produce magnesium alloy. Similarly, if the price of magnesium alloy was to fall, more of the producers' magnesium would be sold as pure magnesium and less magnesium alloy would be produced. Since both markets would be

> significantly affected even if only one product was being dumped or subsidized, there is no reason to treat the two products as separate. This is true even though consumers generally do not see magnesium alloy as a substitute for pure magnesium.
>
> Similar considerations demonstrate that commodity-grade and ultra-pure magnesium are not separate like products. . . . [A]s with magnesium alloy, the production of ultra-pure magnesium generally involves an additional refining step. Thus, once again, depression in the price of one but not both of the potential like products will lead producers to shift production quickly to the other, with the result that both products are part of the same like product.

Magnesium from Canada and Norway, Invs. Nos. 701-TA-309, 731-TA-528 and 529 (Preliminary), USITC Pub. No. 2443 (Oct. 1991) at I-29-30.

What I have since recognized is that focusing on production substitutability may mask the damage that unfair trade practices have in situations where one potential like product is an input into another.[1] In Sulfur Dyes from China, India, and the United Kingdom, Invs. Nos. 731-TA-548, 550, and 551 (Preliminary), USITC Pub. No. 2514, I described the three paradigmatic situations: where the scope of investigation includes only an upstream product, where it includes only a downstream product, or where it includes both. The last situation is obviously the one that is present here, because there are unfair imports of both pure and alloy magnesium.

I am usually inclined to regard upstream and downstream

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[1] As the petitioner notes, alloy magnesium buyers do not view different types of alloy magnesium as close substitutes. I-10 n.18. However, none of the alloys is an input into another alloy and switching production among the various alloys is easy. I therefore consider them all to be one like product.

products as separate like products. Consider first the effect of unfair upstream imports on domestic production of downstream products. Nonintegrated downstream producers would benefit because the cost of their inputs would decline. But even an integrated downstream producer would not be harmed, because its marginal cost of making the downstream product would not change, and so its production should not be affected. (One exception would be if the imports became so cheap that even an integrated producer began using them, instead of its own upstream product, as input for its downstream production.) Even if this made its overall operation less profitable, its downstream production would not be harmed, because the costs of that production could only decline. As a general rule, then, domestic products that are produced using the subject imports (or their domestic equivalents) should not be part of the like product just because they are made by an integrated producer.

Nor should unfair imports of a downstream product necessarily mean we should consider upstream domestic products to be part of the same like product. Indeed, the harm that such imports cause a domestic industry making the downstream product may be masked to the extent that the industry could shift production into the upstream product and thereby increase its revenues. Again, there is an exception to this general rule when the upstream product is used only in the downstream product. See Sulfur Dyes at 36-37.[2] That is not the case here, where there is

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[2] In cases involving parts and assembled products, or semifinished and finished products, a majority of the Commission (continued...)

a large demand for pure and alloy magnesium, and even an identifiable market for ultra-pure magnesium.

I am left with the question I asked in Sulfur Dyes: Is there a coincidence of interest among producers of the upstream and downstream products? It may seem a closer question, certainly closer than in Sulfur Dyes, where producers of the downstream product opposed the petition and the producer of the upstream product (which also made the downstream product) supported it. These investigations showed, however, that there are clearly independent uses for the upstream product (pure magnesium) apart from its use as an input either to alloy or ultra-pure magnesium. Indeed, although all three domestic producers make pure magnesium, only two make alloy, and only one makes ultra-pure. I-54. Finally, it is possible on this record to segregate the effects of unfairly low Canadian prices on the alloy and pure magnesium markets. Compare Softwood Lumber from

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[2](...continued)
has used a five factor test to decide whether to include upstream parts and semifinished products in the same like product as downstream assembled or finished products. I have criticized this test as verging on incoherence. See Sulfur Dyes, supra, at 36-37. I therefore am glad that the majority today adopts a different analysis. Nevertheless, one factor in the old analysis was whether the upstream product was dedicated for use in the downstream product. If it was, then the upstream and downstream products would be considered one like product; if it was not, then they would be considered separate like products. As I wrote in Sulfur Dyes, this was helpful because it focused our attention on "the key question of whether there is a coincidence, or at least a near coincidence, of economic interest between those who make the upstream product and those who make the downstream product." Id. at 37. I do find it noteworthy that this is the only case I am aware of during my tenure on the Commission in which an unfinished and finished product have been held to constitute a single like product when the unfinished product was not found to be dedicated for use in the final product.

Canada, Inv. No. 701-TA-312, USITC Pub. No. 2530 (July 1992) at 38-39.

I therefore find three like products consisting of pure, alloy, and ultra-pure magnesium. The domestic industry consists of the makers of each.

II. Material Injury

Having defined three like products, I must make three different determinations of whether a domestic industry is being materially injured by reason of the dumped or subsidized imports. A determination on the effects of ultra-pure magnesium imports is easy. There are no unfairly traded ultra-pure magnesium imports, I-96, and nothing in the record shows any prospect of them in the near future. My determination is therefore negative. My determinations on pure and alloy are necessarily more complicated because there are subject imports.

Pure Magnesium. As the majority points out, the substitutability of Canadian pure magnesium and U.S. pure magnesium, as well as the substitutability of Canadian alloy magnesium and U.S. alloy magnesium, is quite high. See op. at 12. I fully join that analysis. Moreover, the market share of the dumped and subsidized imports of pure magnesium is far from trivial. C-3. The dumping margin is 31.33 percent, so that Canadian imports would probably be driven out of the U.S. market if they had to be sold at the price Commerce calculated would be fair. This means that the dumping alone materially injures the U.S. pure magnesium industry. (Most of this injury takes the form of a decline in the volume of U.S. sales, rather than in the

price of pure magnesium, since the U.S. industry exports a considerable fraction of its production abroad and has substantial unused capacity at home. C-4.) Any effects of the subsidization only add to this injury.

Alloy Magnesium. The market share of the subject imports of alloy magnesium is also far from trivial. C-6. In contrast to pure magnesium, however, Commerce found that alloy magnesium was not dumped, but only subsidized.

Estimating the effects of subsidization is often difficult.[3] In this case, I fully agree with my colleagues that "the nature of the subsidies here is especially significant." Op. at 19. Of the 21.61 percent subsidization rate, fully 15.43 percent is in the form of subsidized water and electricity, essential and important inputs in the production of alloy magnesium. A-20-21.[4] Such subsidies push down Norsk Hydro's marginal cost of production, and enable it to increase the quantity it can profitably make and sell.

Moreover, the subsidies involved in this case are not only more than twice as high as those involved in Softwood Lumber, but are more likely represent a real cost advantage for these imports in the U.S. market, given the relatively low importance of transportation costs in this industry, I-117, and the fact that these subsidies (unlike some of those in Softwood Lumber)

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[3] For a full explanation of how and why I look at the effects of the subsidization, see Softwood Lumber, supra, at 40-53.

[4] I assume without deciding that the effects of a grant for pollution abatement equipment on the U.S. alloy magnesium market are nil.

directly benefit the maker of the subsidized product.

I recognize that a substantial part of Norsk Hydro's production is now consumed in Canada, I-93, meaning that the effects of the subsidy are less likely to be felt in the United States. However, the substitutability of domestic and imported alloy magnesium is so high that I conclude that the effect of the subsidization is to injure materially the U.S. alloy magnesium industry. As in the case of pure magnesium, most of this injury takes the form of reduced volume rather than reduced price, since the U.S. industry exports a considerable fraction of its production abroad and has substantial unused capacity at home. C-7.

Information Obtained in the Investigations

INTRODUCTION

Institution

Countervailing Duty Investigation

Following an affirmative preliminary countervailing duty (CVD) determination by the U.S. Department of Commerce (Commerce) that subsidies are being provided to manufacturers, producers, or exporters in Canada of pure and alloy magnesium,[1] the U.S. International Trade Commission (Commission), effective December 4, 1991, instituted investigation No. 701-TA-309 (Final) under section 705(b) of the Tariff Act of 1930 (the act),[2] concerning imports of magnesium[3] from Canada. This investigation was instituted to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise. Copies of the Commission's and Commerce's *Federal Register* notices are presented in Appendix A.

In its final determination, as published in the *Federal Register*,[4] Commerce determined that subsidies within the meaning of section 701 of the act are being provided to Norsk Hydro Canada, Inc. (Norsk Hydro Canada), a Canadian producer and exporter of pure and alloy magnesium.

Antidumping Investigations

Following affirmative preliminary antidumping determinations by Commerce that imports of pure and alloy magnesium from Canada and Norway are being, or are likely to be, sold in the United States at less than fair value (LTFV),[5] the Commission, effective February 18, 1992, instituted investigations Nos. 731-TA-528 and 529 (Final) under section 735(b) of the act,[6] concerning imports of pure and alloy magnesium from Canada and Norway. These investigations were instituted to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of

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[1] 56 F.R. 63927, Dec. 6, 1991.

[2] 19 USC § 1671d(b).

[3] The products covered by this investigation 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 magnesium contains less than 99.8 percent 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. Pure and alloy 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 secondary magnesium and granular magnesium.

[4] 57 F.R. 30946, July 13, 1992.

[5] 57 F.R. 6092, Feb. 20, 1992.

[6] 19 USC § 1673d(b).

an industry in the United States is materially retarded, by reason of imports of such merchandise.

In its final determinations, as published in the *Federal Register*,[7] Commerce determined that imports of pure magnesium from Canada are being, or are likely to be, sold in the United States at LTFV, but that imports of pure magnesium from Norway were not being, and were not likely to be, sold in the United States at LTFV. In addition, Commerce determined that pure and alloy magnesium constitute two separate classes or kinds of merchandise and rescinded the portions of its antidumping investigations dealing with alloy magnesium on the basis that the evidence provided by the petitioner was insufficient to support the allegations. The Commission then terminated its antidumping investigation on magnesium from Norway. A copy of the Commission's termination notice is presented in Appendix A.

The Commission's Hearing, Vote, and Determinations

Following a series of postponements, a public hearing in connection with the investigations concerning Canada was held on July 14, 1992. A list of participants in the hearing is presented in Appendix B. The Commission's vote on the investigations was Monday, August 10, 1992. Section 735(b)(2) of the act directs the Commission to make final determinations within 120 days after notification of Commerce's preliminary determinations or within 45 days after notification of Commerce's final determinations, whichever date is later.[8] The Commission's administrative deadline for its determinations in these investigations is August 19, 1992.

Background

These investigations result from a petition filed with the Commission and Commerce on September 5, 1991, by Magnesium Corp. of America (Magcorp), Salt Lake City, UT, alleging that the magnesium industry in the United States is materially injured or threatened with material injury by reason of subsidized and LTFV imports of pure and alloy magnesium from Canada and Norway. In response to that petition, the Commission instituted investigations Nos. 701-TA-309 (Preliminary) and 731-TA-528 and 529 (Preliminary)[9] under sections 703(a) and 733(a) of the act.[10] On October 21, 1991, the

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[7] 57 F.R. 30939, July 13, 1992.

[8] 19 USC § 1673d(b)(2).

[9] 56 F.R. 46443, Sept. 12, 1991.

[10] 19 USC § 1671b(a), and 19 USC § 1673b(a). 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. Notice of termination was published in the *Federal Register* of Oct. 23, 1991 (56 F.R. 54887).

Commission unanimously determined that there was a reasonable indication of material injury by reason of the allegedly subsidized and LTFV imports.[11]

PREVIOUS AND OTHER INVESTIGATIONS CONCERNING MAGNESIUM

There have been four previous Commission investigations concerning magnesium. In 1921, the Commission ruled on three cases concerning magnesium carbonate, metallic magnesium, and magnesium sulphate.[12] In 1945, the Commission ruled on a *War Changes in Industry* investigation concerning magnesium.

In February 1991, a petition for trade adjustment assistance was filed with the U.S. Department of Labor (Labor) on behalf of Magcorp's workers. The petition stated reasons why increased imports from Canada of "magnesium ingots used for alloying of metals such as aluminum and chemical purposes and castings" allegedly caused a decline in Magcorp's sales or production and its workers' "actual or threatened loss of employment." An investigation was initiated by Labor on February 19, 1991. The investigation concluded on May 16, 1991, when Labor denied Magcorp's workers the eligibility to apply for adjustment assistance, stating the following criterion from the Trade Act of 1974 was not met:

> *that increases of imports of articles like or directly competitive with articles produced by the firm or appropriate subdivision have contributed importantly to the separations, or threat thereof, and to the absolute decline in sales and production.*

On January 6, 1992, 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."[13] In its 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.[14]

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[11] 56 F.R. 55930, Oct. 30, 1991.

[12] U.S. Tariff Commission report Nos. A-10, C-16, and A-10, respectively.

[13] Press release of Northwest Alloys, Dec. 13, 1991.

[14] 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, (continued...)

THE PRODUCT

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,[15] 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.[16] 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.

Pure and Alloy Magnesium

Two types of magnesium are sold: pure magnesium and alloy magnesium. Pure magnesium can be further divided into commodity-grade and ultra-pure 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 ultra-pure 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.

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[14] (...continued)
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 *** percent of total U.S. imports of magnesium.

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

[16] In 1990, over 50 percent of the magnesium produced in the United States was consumed by the aluminum industry for use as an aluminum alloy (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."

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 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,[17] 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. (Pure magnesium is seldom used for structural applications, because its specific tensile and yield strengths are low.)

The customers who purchase pure magnesium are almost always different from those who 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.

Ultra-pure and Commodity-grade Pure Magnesium

Although the physical appearance of ultra-pure and commodity-grade pure magnesium is even more similar than the appearance of pure magnesium compared to magnesium alloy, ultra-pure magnesium differs from commodity-grade pure magnesium in that ultra-pure 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. Ultra-pure magnesium can be substituted for commodity-grade magnesium, but such substitution is unlikely because ultra-pure magnesium commands a higher selling price. On the other hand, commodity-grade magnesium cannot be used for the applications in which ultra-pure magnesium is used.

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,

[17] 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.

C, D, and E.[18] As previously mentioned, the most popular grade of alloy magnesium is AZ91D. It comprises approximately 90 percent of the die casting alloy market and almost 50 percent of the total alloy market.[19]

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,[20] magnesite, brucite, and olivine), seawater,[21] and well and lake brines.[22] In the United States, Dow Magnesium (Dow), the largest producer, uses seawater from the Gulf of Mexico and adds dolime[23] 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. In Canada, Norsk Hydro

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[18] The petitioner asserts that "there exist major technical barriers to substitutability between alloys which are certainly at least as strong if not stronger than barriers between pure magnesium and alloy magnesium" (posthearing brief on behalf of petitioner, responses to questions of the Commission staff, pp. 8-13). Respondent Norsk Hydro Canada states that "There is also little, if no, substitutability between (sic) the various types of magnesium alloys. Structural parts are designed for production with a particular magnesium alloy because of the chemical, mechanical and physical properties associated with that alloy. All parts are made to order. If a diecaster were to substitute one magnesium alloy for another magnesium alloy producing a structural part, the customer would be entitled to reject the part for its failure to fulfill the requisite specifications. Thus, there is little or no substitutability between (sic) the various type of magnesium alloys" (posthearing brief of Norsk Hydro Canada, exhibit 13, p. 1).

[19] Petitioner's posthearing brief, responses to questions of the Commission's staff, p. 14.

[20] 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.

[21] 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.

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

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

Canada (the largest Canadian producer) uses *** as its raw material, while Timminco uses dolime plus ferrosilicon and aluminum in a process similar to Northwest Alloys.

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,[24] 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, Dow, and Norsk Hydro Canada use the electrolytic process. Northwest Alloys and Timminco use 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.[25] 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. A schematic diagram of Magcorp's electrolytic process is presented in figure 1.

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.[26] A schematic diagram of Northwest Alloys' production process is presented in figure 2.

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 by-products.[27] Magcorp was cited by the Environmental Protection Agency (EPA) in its annual *Toxic Release Inventory* as the largest single toxic polluter in the United States in 1987 and 1988 and has subsequently continued to

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[24] 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.

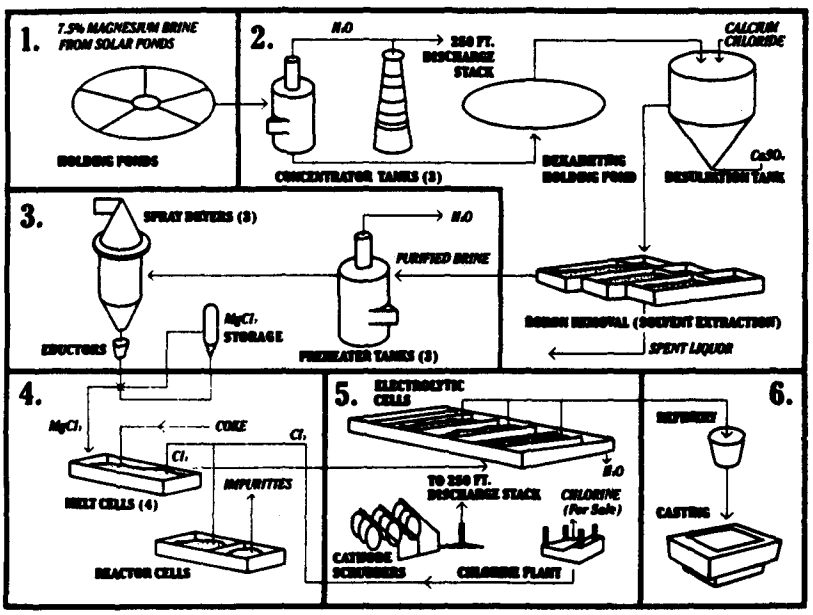
[25] Electrolytic cells differ by company and are based on proprietary technologies. Electrolytic cell designs and even the number of cells used are closely guarded secrets; therefore, little information is usually disclosed regarding cell designs. In Commission staff visits to Dow and Norsk Hydro Canada, the electrolytic cell buildings were off-limits to inspection.

[26] Northwest Alloys uses furnaces that are ***.

[27] In past years, when chlorine gas and HCL market prices were high enough, these by-products were sold to outside customers. In recent year, however, there has been little market demand for these products due to their oversupply in the market.

Figure 1
Schematic diagram of the electrolytic production process

MAGCORP'S SIX PART PROCESS OF MAGNESIUM



Magnesium Corporation of America (MAGCORP)

1. SOLAR EVAPORATION

The first step to convert lake water into magnesium, is to concentrate the brine. That is, to increase the concentration of suspended minerals...while decreasing the percentage of water.

To do this, lake water is pumped into enormous solar evaporation ponds — shallow, man-made ponds covering vast acres of the flat, desert floor. The sun, the wind and the dry climate speed evaporation.

To control the lake's level, the Utah State Government also installed a series of pumps that flood part of the Bonneville Salt Flats. The result is, in essence, a "new" Salt Lake, impervious to the natural rise and fall of the original lake. Magcorp built a second set of solar ponds near the new lake, benefitting from its stability...and the "preconcentration" of minerals from the partially evaporated water.

As the water evaporates, potassium and sodium crystallize on the pond floors. However, the magnesium — in the form of magnesium chloride — remains suspended in the brine and eventually reaches a concentration of 7.5%...nearly 20 times the original concentration!

Throughout this entire process, the principal source of energy is safe, clean, solar power.

2. BRINE PREPARATION

The concentrated brine is pumped from the evaporation ponds to holding ponds — which contain enough brine to supply two years of ready raw material for processing.

In the brine preparation area, the brine is purified, removing other minerals and products — but leaving the magnesium chloride.

Locally mined oolitic sands ($CaCO_3$) are mixed with by-product hydrochloric acid (HCl). This produces a Calcium Chloride ($CaCl_2$) solution.

The Calcium Chloride ($CaCl_2$) is mixed with the brine and reacts with the sulfate to form gypsum ($CaSO_4$). Then the gypsum is separated from the brine with a thickener.

Finally, a solvent extraction process is used to eliminate boron from the brine.

3. SPRAY DRYING INTO POWDER

Next the magnesium chloride solution is piped from the holding ponds into giant towers within the processing plant. There, high-volume, state-of-the-art spray dryers flash dry the solution into magnesium chloride powder.

The powder is recovered and stored in million-pound-capacity bins.

4. MELTING AND PURIFYING

The magnesium chloride powder is next transferred to melt cells where it is melted and purified, using chlorine and other chemicals. This step removes magnesium oxide...other trace impurities...and any remaining water.

(It's noteworthy that the chlorine used in this step is a recycled by-product from the electrolytic process [step #5]. Throughout Magcorp's magnesium processing, there is virtually no waste. Even though magnesium is the intended product — all by-products are used...sold...or processed further.)

5. ISOLATING THE MAGNESIUM

The molten magnesium chloride is transferred to electrolytic cells...where it's finally separated into magnesium and chlorine.

A direct electrical current is used to decompose the magnesium chloride into liquid magnesium metal and chlorine gas. The chlorine is collected under vacuum and transferred to the chlorine plant — where it is cleaned, purified and dried for re-use...or for sale to other industries, such as water or swimming pool purification, gold mining operations, etc.

The purified, molten magnesium is collected in vacuum transfer vessels and taken to the cast house.

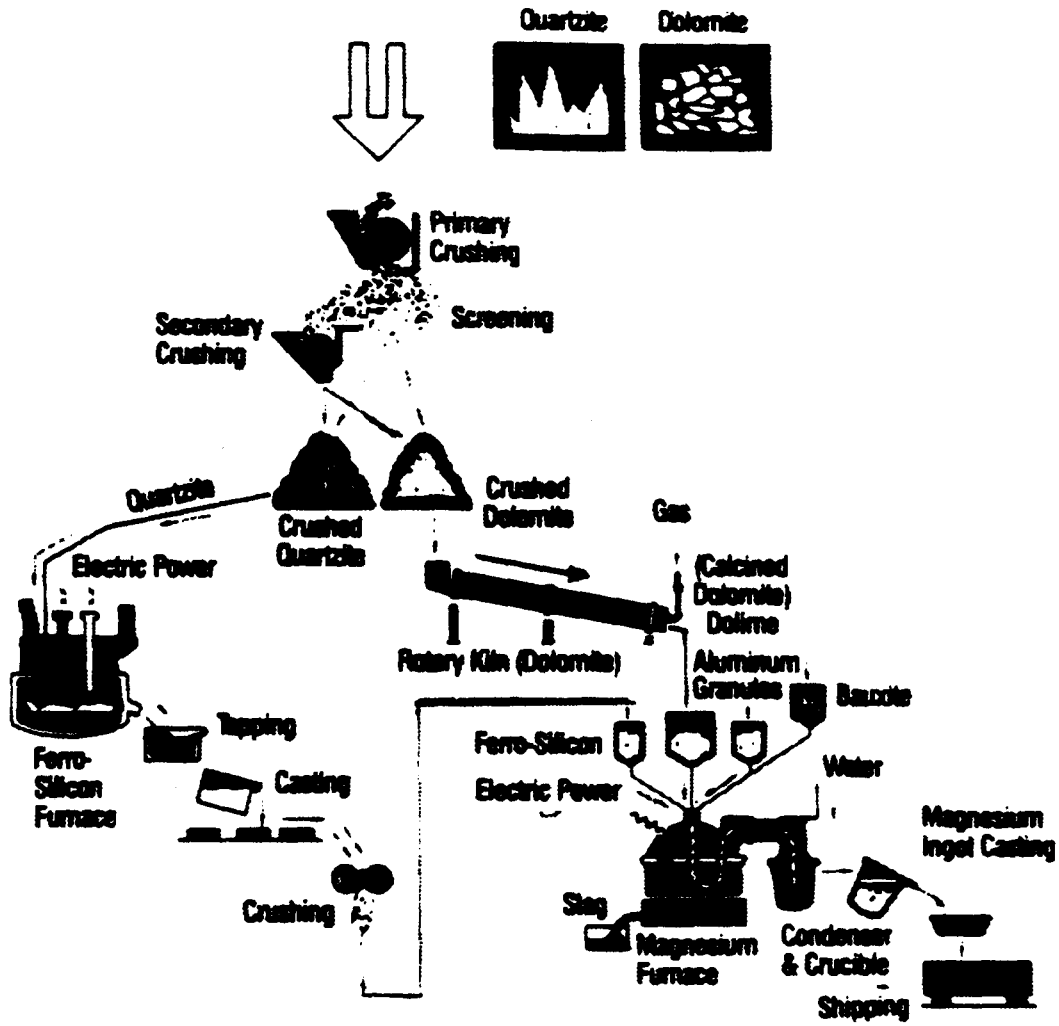
6. CASTING

In the cast house — or foundry — the magnesium is further refined...and then cast into ingots, weighing from 15 to 500 pounds.

Some of the magnesium is alloyed with other metals — such as zinc and aluminum — to create strong, high-purity, corrosion-resistant, lightweight magnesium alloys. Or it may be turned directly into end-use products, such as anodes for corrosion protection...or high-purity grinding slabs.

Source: Magcorp.

Figure 2
Schematic diagram of the silicothermic production process



Source: Northwest Alloys.

be singled out as a major polluter.[28] According to data provided by Norsk Hydro Canada, its Becancour, Quebec, plant emits only a fraction of the air emissions and water effluents of Magcorp's Rowley, UT plant. No pollution emission data were provided to the Commission by Dow.

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, peg-lock ingots, or T-bars.[29] Diecasters typically purchase smaller size ingots for small batch remelting. Steel desulfurizers typically purchase smaller-sized 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 3.

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.[30] Most manufacturers then use separate casting lines to produce pure or alloy magnesium.[31] In those facilities which produce both pure magnesium and alloy magnesium, the same production workers tend to work on both lines.

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[28] EPA figures for 1988 indicated that Magcorp emitted 110 million pounds of toxic pollutants—a 50 percent increase over 1987 emissions. Magcorp released almost three times as much toxics as the second-worst toxic polluter, Tennessee Eastman Co. of Kingsport, Tenn., which emitted 40 million pounds. Magcorp's pollution accounted for 92 percent of toxics released in Utah's air and 73 percent of all toxics released in Utah's overall environment of land, air, and water.

In June of 1990, a chlorine reduction burner was installed on one of the plant's emission stacks and is expected to reduce the plant's chlorine emissions by 40 percent. This chlorine reduction burner was installed under an agreement with the Utah Bureau of Air Quality. In addition to an estimated $2.5 million spent on new pollution control equipment during the period 1989-90, Magcorp has had to pay additional fines to the state. For each day the chlorine reduction burner is not working properly after June 30, 1990, Magcorp may be fined up to $7,000 per day. There is an exception for unexpected mechanical problems.

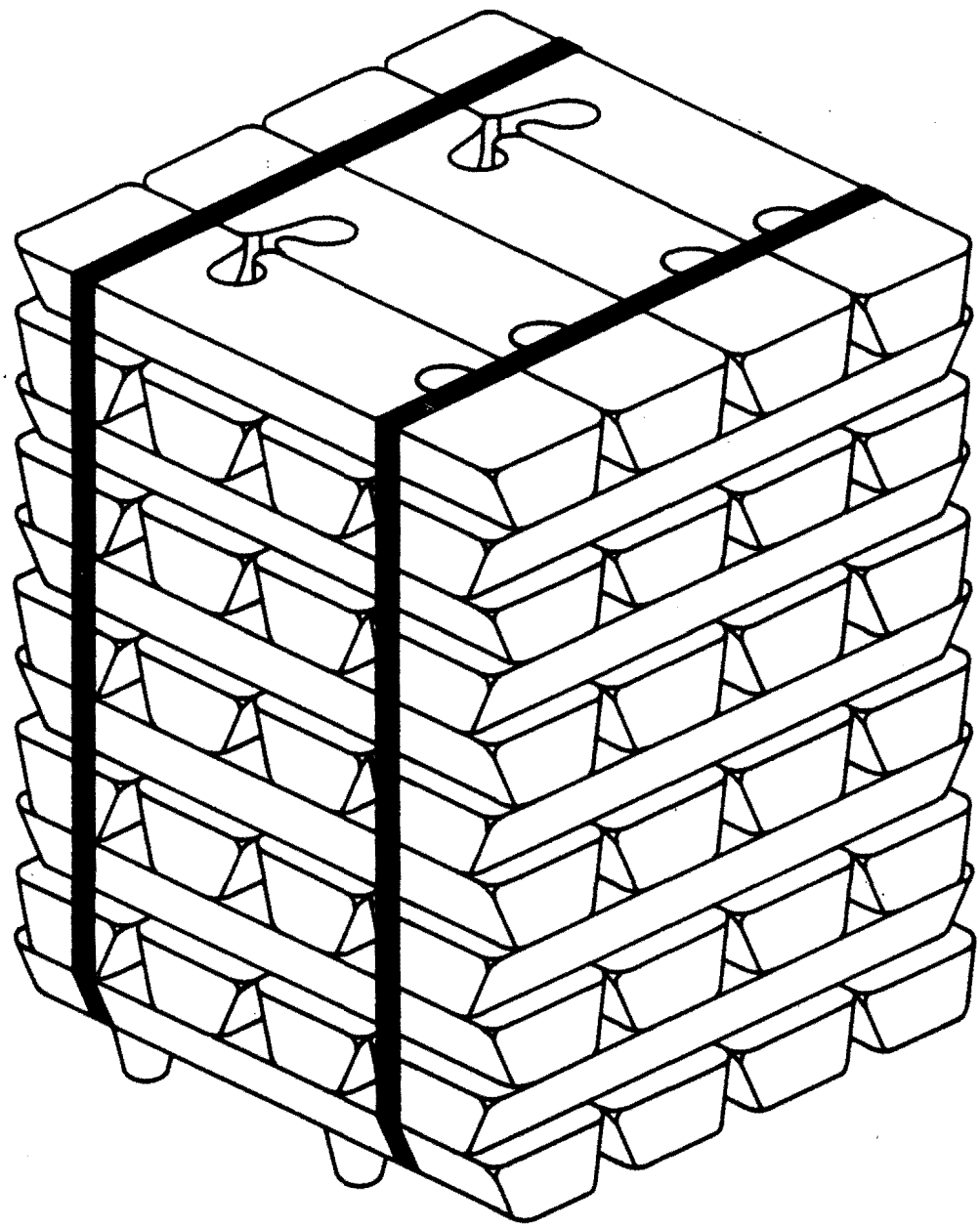
[29] Norsk Hydro Canada is currently the only producer of direct-chill (DC) cast T-bars. This product is chemically identical to other pure magnesium cast shapes, but differs in the way it is cast and in its final shape (the cross-section looks like a T). DC cast T-bars are continuously cast into 24-foot long sections that are cut into smaller sizes according to customer specifications.

Because of this special casting technique, T-bars do not contain shrink-cavities that are usually present in traditionally cast ingots. Shrink-cavities are of concern to aluminum producers because of potential moisture build-up in ingot cavities which can cause an explosion when placed in aluminum alloying furnaces. In addition, DC cast T-Bars eliminate a step performed by many aluminum producers who preheat the pure magnesium ingots in order to evaporate any moisture in the ingot prior to addition to molten aluminum.

[30] 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.

[31] Magcorp uses *** and has ***. According to its questionnaire response, Dow uses ***. Northwest Alloys produces only ***; however, the company can produce ***.

Figure 3
Illustration of typical cast shape of magnesium ingots



Source: Northwest Alloys.

Magcorp uses ***. Its production process inherently produces pure magnesium. In order to produce magnesium alloys or ultra-pure magnesium, the pure magnesium must complete a further step. This additional step involves the placing of liquid magnesium into special furnaces and either adding alloying elements to produce magnesium alloys or by further processing in order to extract certain impurities to produce higher purity magnesium. Dow uses a very similar process. Dow, however, has ***. ***. Norsk Hydro Canada has ***.

The cost of producing alloy magnesium is slightly higher than the cost of producing pure magnesium due to the cost of purchasing aluminum ingot for alloying and any extra processing costs. This cost will vary as the price of aluminum varies.[32]

Price differences between pure magnesium and alloy magnesium exist due to differences in costs and in end-use market demand for each product. Although no specific price relationship between the two products has been exhibited, the final price of both products reflects changes in those raw material costs that are common to both products. Ultra-pure magnesium has characteristics identical to commodity-grade pure magnesium, with the exception that ultra-pure 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. Ultra-pure magnesium in ingot form can be substituted for commodity-grade pure magnesium in most applications. However, this type of substitution is unlikely because ultra-pure magnesium typically sells at a price premium compared to commodity-grade magnesium. Commodity-grade pure magnesium is not substitutable for ultra-pure magnesium due to 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.[33] Alterations to switch between commodity-grade pure and ultra-pure 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 involve moving from one casting line to another and metal scheduling changes. Dow and Magcorp indicated that production capabilities for

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[32] ***. For additional cost comparisons, see tables 21, 23, 27, 29 in the "Financial Experience of U.S. Producers" section later in this report.

[33] Both companies indicated ***. However, they both indicated that ***.

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

Northwest Alloys indicated ***. ***.

Dow, Magcorp, and Northwest Alloys indicated that they did not produce other products using the same production and related workers employed in the production of primary magnesium.

Secondary Magnesium

Secondary magnesium is magnesium recovered from secondary sources such as old and new scrap and recycling.[34] The bulk of secondary magnesium is consumed by the aluminum can recycling industry,[35] and approximately 15 percent of secondary magnesium is sold on the open market.

In its preliminary investigation, the Commission also collected data on secondary magnesium. None of the secondary magnesium producers indicated that they produced primary magnesium.[36] Likewise, none of the producers of pure and alloy magnesium (primary magnesium) indicated that they produced secondary magnesium. The Commission in its preliminary determinations concluded that secondary magnesium is not "like" the imported pure and alloy magnesium subject to these investigations.[37]

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[34] 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.

[35] 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.

[36] 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.

[37] Determination of the Commission in Invs. Nos. 701-TA-309 and 731-TA-528 and 529 (Preliminary): Magnesium from Canada and Norway, USITC Pub. 2442, Oct. 1991, p. I-7, n. 7.

Substitute Products[38]

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[39] in some refractory applications.[40]

U.S. Tariff Treatment

Imports of pure magnesium and alloy 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 (MFN) rates.

Pure Magnesium

The column 1-general rate of duty for subheading 8104.11.00 is 8 percent ad valorem. Imports from Canada currently receive a preferential duty rate of 4.8 percent ad valorem under the United States-Canada Free-Trade Agreement. Eligible imports from designated countries under the Generalized System of Preferences (GSP), the Caribbean Basin Economic Recovery Act (CBERA), and the Andean Trade Preference Act (ATPA) and from Israel under

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[38] For a more detailed discussion of market characteristics and substitute products, see the "Market Characteristics" section later in this report.

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

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

Table 1
Pure and alloy magnesium: U.S. import duties for HTS subheadings 8104.11.00[1] (pure magnesium) and 8104.19.00[2] (alloy magnesium), 1992

Subheading/eligibility status	*Duty column*	*Rate of duty*
		(percent ad valorem)
Subheading 8104.11.00 (pure magnesium):		
Canada[3]	Col. 1—Special	4.8
MFN countries[4]	Col. 1—General	8.0
Other special rate countries:		
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
Subheading 8104.19.00 (alloy magnesium):		
Canada[3]	Col. 1—Special	3.9
MFN countries[4]	Col. 1—General	6.5
Other special rate countries:		
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] Imports are subject to provisions in the United States-Canada Free-Trade Agreement.
[4] Other countries eligible for most-favored-nation tariff treatment.
[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) of the HTS.

Source: Harmonized Tariff Schedule of the United States (1992).

the United States-Israel Free Trade Area Implementation Act, receive duty-free entry. 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. Imports from Canada currently receive a preferential duty rate of 3.9 percent ad valorem under the United States-Canada Free-Trade Agreement. Eligible imports receive duty-free entry under the CBERA, the ATPA, and the United States-Israel Free Trade Area Implementation Act. The column 2 rate of duty is 60.5 percent ad valorem.

THE NATURE AND EXTENT OF SUBSIDIES AND SALES AT LTFV

Subsidies

On July 13, 1992, Commerce published in the *Federal Register* notice of its final determination that certain benefits which constitute subsidies within the meaning of section 701 of the act are being provided to Norsk Hydro Canada, a producer, manufacturer, and exporter in Canada of pure and alloy magnesium.[41] A copy of Commerce's notice is presented in Appendix A. A petition alleging subsidies by the Government of Norway was dismissed by Commerce on October 1, 1991, because of a lack of sufficiency.[42]

The final aggregate net subsidy margin for all producers, manufacturers, and exporters in Canada (except Timminco) is 21.61 percent ad valorem.[43] The estimated net subsidy for Timminco is zero. Table 2 presents Commerce's final subsidy margins for Canada. The period of Commerce's review was calendar year 1990.

Sales at LTFV

On July 13, 1992, Commerce published in the *Federal Register* notice of its final determinations regarding imports of pure and alloy magnesium from Canada and Norway.[44] In its final determinations, Commerce found that imports of pure magnesium from Canada are being, or are likely to be, sold in the United States at LTFV as provided in

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[41] 57 F.R. 30946, July 13, 1992.

[42] 56 F.R. 49748, Oct. 1, 1991.

[43] Commerce determined that three countervailable programs are being provided to manufacturers, producers, or exporters of pure and alloy magnesium in Canada (except Timminco). The largest countervailable program is for preferential electric rates provided by the provincially-owned power company, Hydro-Quebec. The estimated net subsidy of this program alone for Norsk Hydro Canada is 14.00 percent ad valorem. The other two programs found to be countervailable are exemptions from the payment of water bills (1.43 percent ad valorem subsidy for Norsk Hydro Canada) and grants from the Quebec Industrial Development Corp. (6.18 percent ad valorem subsidy for Norsk Hydro Canada). Commerce determined that Timminco did not receive any benefits from these programs.

[44] 57 F.R. 30939, July 13, 1992.

Table 2
Pure and alloy magnesium: U.S. Department of Commerce's final aggregate subsidy margins for Canada

Company	Margin
	(percent ad valorem)
Norsk Hydro Canada	21.61
Timminco	0.00
All other[1]	21.61

[1] All other manufacturers, producers, and exporters of pure and alloy magnesium in Canada.

Source: U.S. Department of Commerce.

section 735 of the act. The final weighted-average dumping margin for all producers, manufacturers, and exporters in Canada (except Timminco) is 31.33 percent ad valorem.[45] The final dumping margin for Timminco is 0.00. Commerce's final weighted-average dumping margins for Canada are presented in table 3. The period of Commerce's review was April 1, 1991 to September 30, 1991.

With respect to Norway, Commerce determined that imports of pure magnesium are not being and are not likely to be sold in the United States at LTFV, as provided in section 735 of the act. Also, Commerce rescinded its investigation of alloy magnesium from Canada and Norway because it deemed the evidence provided by the petitioner to be insufficient to support the dumping allegation against alloy magnesium. A copy of Commerce's notice regarding its final determination on imports of pure and alloy magnesium from Canada and Norway is presented in Appendix A.

Critical Circumstances

Petitioner alleged the existence of "critical circumstances" within the meaning of sections 705(a)(2) and 735(a)(3) of the act with respect to imports of pure and alloy magnesium from Canada.[46] The act states that in any investigation in which the presence of critical circumstances has been alleged, Commerce shall make specified findings including whether there have been massive imports of the merchandise over a relatively short period. In its investigation, Commerce compared the volume of imports for Norsk Hydro Canada

[45] Commerce used in its calculations the best information available (as submitted by petitioner) regarding pure magnesium because Norsk Hydro Canada refused to submit a response to several sections of Commerce's questionnaire.

[46] A letter filed with the Commission and Commerce dated Mar. 3, 1992, by Magcorp alleged the existence of "critical circumstances" with regard to imports of pure and alloy magnesium from Canada. No allegation of "critical circumstances" was made with regard to imports of pure and alloy magnesium from Norway.

Table 3
Pure magnesium: U.S. Department of Commerce's final weighted-average dumping margins for Canada

Country/company	*Margin*
	(percent ad valorem)
Norsk Hydro Canada	31.33
Timminco	0.00
All others[1]	31.33

[1] All other manufacturers, producers, and exporters of pure magnesium in Canada.

Source: U.S. Department of Commerce.

during the 3-month period from the filing of the petition (September 1991 through November 1991) to a comparable period immediately preceding the filing of the petition (June 1991 through August 1991).

On July 13, 1992, Commerce published in the *Federal Register* notice of its final determination regarding critical circumstances.[47] Based on best information available,[48] Commerce determined that critical circumstances exist with respect to Norsk Hydro Canada's U.S. imports of pure magnesium[49] but do not exist with respect to Timminco. Because Commerce determined that critical circumstances exist with respect to U.S. imports of pure magnesium from Norsk Hydro Canada, the U.S. Customs Service has been instructed to suspend liquidation of such entries that are entered or withdrawn from warehouse, for consumption, on or after the date which is 90 days prior to the publication of the notice of Commerce's preliminary determination in the *Federal Register.*

Following Commerce's affirmative determination with respect to critical circumstances, the Commission must make certain findings concerning the retroactive imposition of any countervailing and/or antidumping duties.[50] The purpose of these provisions is to provide relief from effects of massive imports, and to deter importers from attempting to circumvent the laws by making massive shipments immediately after the filing of a petition.[51]

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[47] 57 F.R. 30939, July 13, 1992.

[48] Commerce used U.S. Import Statistics (IM-146) because Norsk Hydro Canada failed to provide the necessary information regarding its volume of pure magnesium exports to the United States.

[49] Commerce rescinded its antidumping investigation of alloy magnesium. In addition, no critical circumstances were found in the CVD investigations concerning pure and alloy magnesium, because no export subsidies were found by Commerce. Telephone conversation with Rick Herring, Office of Countervailing Investigations, Import Administration, U.S. Dept. of Commerce, on July 30, 1992.

[50] 19 USC § 1671d(b)(4) and 19 USC § 1673d(b)(4).

[51] See HR Rep. No. 317, 96th Cong., 1st Sess. 63 (1979).

Data on monthly imports of pure magnesium from Norsk Hydro Canada are presented in table 4 and figure 4.

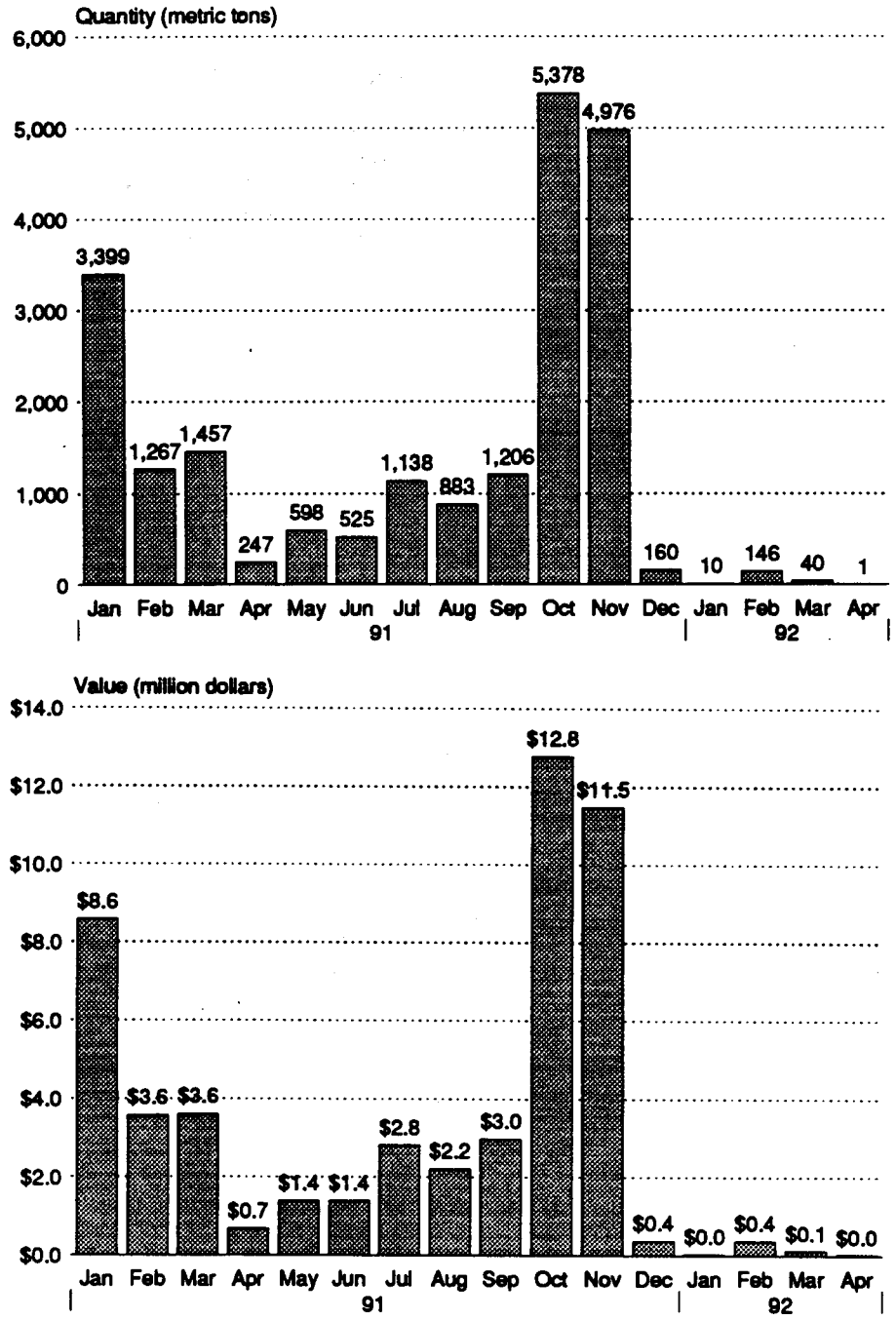
Table 4
Pure magnesium: U.S. imports from Norsk Hydro Canada, by months, January 1991-April 1992

Period	Pure magnesium[1]	
	Quantity	Value[2]
	(metric tons)	(1,000 dollars)
1991:		
January	3,398.5	8,578.6
February	1,266.5	3,577.1
March	1,456.9	3,608.7
April	247.0	671.6
May	597.7	1,391.0
June	525.3	1,391.5
July	1,137.9	2,804.2
August	883.3	2,204.0
September[3]	1,206.1	2,971.9
October	5,378.1	12,787.6
November	4,976.2	11,485.5
December	160.2	370.7
1992:		
January	10.5	26.7
February	146.2	365.9
March	39.5	112.6
April	1.1	20.9

[1] Includes both ultra-pure and commodity-grade pure magnesium.
[2] C.I.F. value.
[3] Magcorp's petitions were filed on Sept. 5, 1991.

Source: Official statistics of the U.S. Department of Commerce as presented in the posthearing brief of Norsk Hydro Canada, Exhibit 16.

Figure 4
Pure magnesium: U.S. imports from Norsk Hydro Canada, by months, January 1991-April 1992



Source: Official statistics of the U.S. Department of Commerce as presented in the posthearing brief of Norsk Hydro Canada, Exhibit 16.

THE DOMESTIC MARKET

The period for which data were collected in these investigations is from January 1989 through December 1991.[52] U.S. trade data and U.S. import data for Canada were compiled from responses to questionnaires of the Commission.[53] Responses were received from all three U.S. producers and both producers in Canada, representing 100 percent data coverage (unless otherwise noted). Import data for all other countries are compiled from official statistics of Commerce. Summary data on apparent U.S. consumption, imports, and the performance of the domestic industry are presented in Appendix C.

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 pure and alloy magnesium are presented in table 5 and figure 5.[54]

Apparent U.S. consumption of pure and alloy magnesium remained stable from 1989 to 1990 but decreased 3.5 percent from 1990 to 1991. Apparent U.S. consumption of ultra-pure magnesium decreased *** percent from 1989 to 1990 but increased *** percent from 1990 to 1991. Apparent U.S. consumption of commodity-grade pure magnesium decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991. Apparent U.S. consumption of alloy magnesium increased *** percent from 1989 to 1990 but decreased *** percent from 1990 to 1991.

U.S. Consumption by Market Segments

Table 6 and figure 6 present U.S. producers' U.S. shipments by products and end users for 1989-91. 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 shipments to aluminum producers comprise the largest sub-market.

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

[53] Imports from Timminco were found to be fairly traded by Commerce in its CVD and antidumping determinations; therefore, import data for Canada consist of data of Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected. Imports from Timminco are included in import data for "other sources."

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

Table 5
Magnesium: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, by products, 1989-91

(In metric tons)

Item	1989	1990	1991
Producers' U.S. shipments:[1]			
Ultra-pure magnesium	***	***	***
Commodity-grade pure magnesium	***	***	***
Alloy magnesium	***	***	***
Total, U.S. shipments	97,526	88,184	79,193
U.S. imports:[2]			
Ultra-pure magnesium:			
Canada[3]	***	***	***
Other sources[4 5]	***	***	***
Subtotal	***	***	***
Commodity-grade pure magnesium:			
Canada[3]	***	***	***
Other sources[4]	***	***	***
Subtotal	***	***	***
Alloy magnesium:			
Canada[3]	***	***	***
Other sources	***	***	***
Subtotal	***	***	***
Total all magnesium:			
Canada[3]	***	***	***
Other sources	***	***	***
Total, imports[2]	8,599	17,977	23,304

Table continued. See footnotes at end of table.

Table 5—*continued*
Magnesium: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, by products, 1989-91

(In metric tons)

Item	1989	1990	1991
Apparent U.S. consumption:			
Ultra-pure magnesium	***	***	***
Commodity-grade pure magnesium	***	***	***
Alloy magnesium	***	***	***
Total, apparent U.S. consumption	106,125	106,161	102,497

[1] U.S. shipments include company transfers and domestic shipments.
[2] Data presented are U.S. shipments of imports from Norsk Hydro Canada and Norsk Hydro Norway and U.S. imports from Timminco and countries other than Canada and Norway.
[3] Imports from Timminco were found to be fairly traded by Commerce in final CVD and antidumping determinations; therefore, import data for Canada consist of data of Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected. Timminco imports are included in import data for "other sources."
[4] HTS classifications do not differentiate imports of magnesium by grade. Therefore, imports of ultra-pure and commodity-grade pure magnesium from "other sources" have been classified as commodity-grade pure magnesium. As a result, imports of ultra-pure magnesium may be slightly understated and imports of commodity-grade pure magnesium may be slightly overstated. Imports from Timminco are, however, differentiated by grade.
[5] Consists of data for Timminco only.

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 5
Pure and alloy magnesium: Apparent U.S. consumption, by products, 1989-91

* * * * * * *

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 6
Pure and alloy magnesium: U.S. producers' U.S. shipments, by products and end users, 1989-91

(In metric tons)

Item	1989	1990	1991
Ultra-pure magnesium:			
Aluminum producers	***	***	***
Diecasters	***	***	***
Steel desulfurizers	***	***	***
Other[1]	***	***	***
Total	***	***	***
Commodity-grade pure magnesium:			
Aluminum producers	***	***	***
Diecasters	***	***	***
Steel desulfurizers	***	***	***
Other[1]	***	***	***
Total	***	***	***
Alloy magnesium:			
Aluminum producers	***	***	***
Diecasters	***	***	***
Steel desulfurizers	***	***	***
Other[1]	***	***	***
Total	***	***	***
Total, all magnesium:			
Aluminum producers	51,343	47,677	47,347
Diecasters	***	***	***
Steel desulfurizers	21,061	14,386	11,684
Other[1]	***	***	***
Total[2]	91,906	82,079	75,509

[1] Metal reduction, wrought products, granules and grignard production.
[2] Due to they way companies completed the questions regarding shipments by end users, this total may not equal total U.S. shipments presented in table 5.

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

Figure 6
Pure and alloy magnesium: U.S. producers' U.S. shipments, by products and end users, 1991

* * * * * * *

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

U.S. Producers

There are three producers of pure and alloy 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 7. Figure 7 indicates the location of U.S. producers. The share of U.S. production accounted for by each producer, by products, for the period 1989-91 is presented in table 8.

Table 7
Pure and alloy magnesium: U.S. producers, plant locations, raw materials, and positions taken with respect to the petition, 1991

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.[55]

[55] The Rowley plant was built in 1972 by National Lead (NL) Industries. The plant went through many modifications and shutdowns during its first five years in operation. In November 1980, NL Industries sold the plant to AMAX Magnesium. In 1979, production capacity was *** metric tons. By 1986, annual capacity at the plant had risen to *** metric tons.
According to Magcorp, ***. ***.

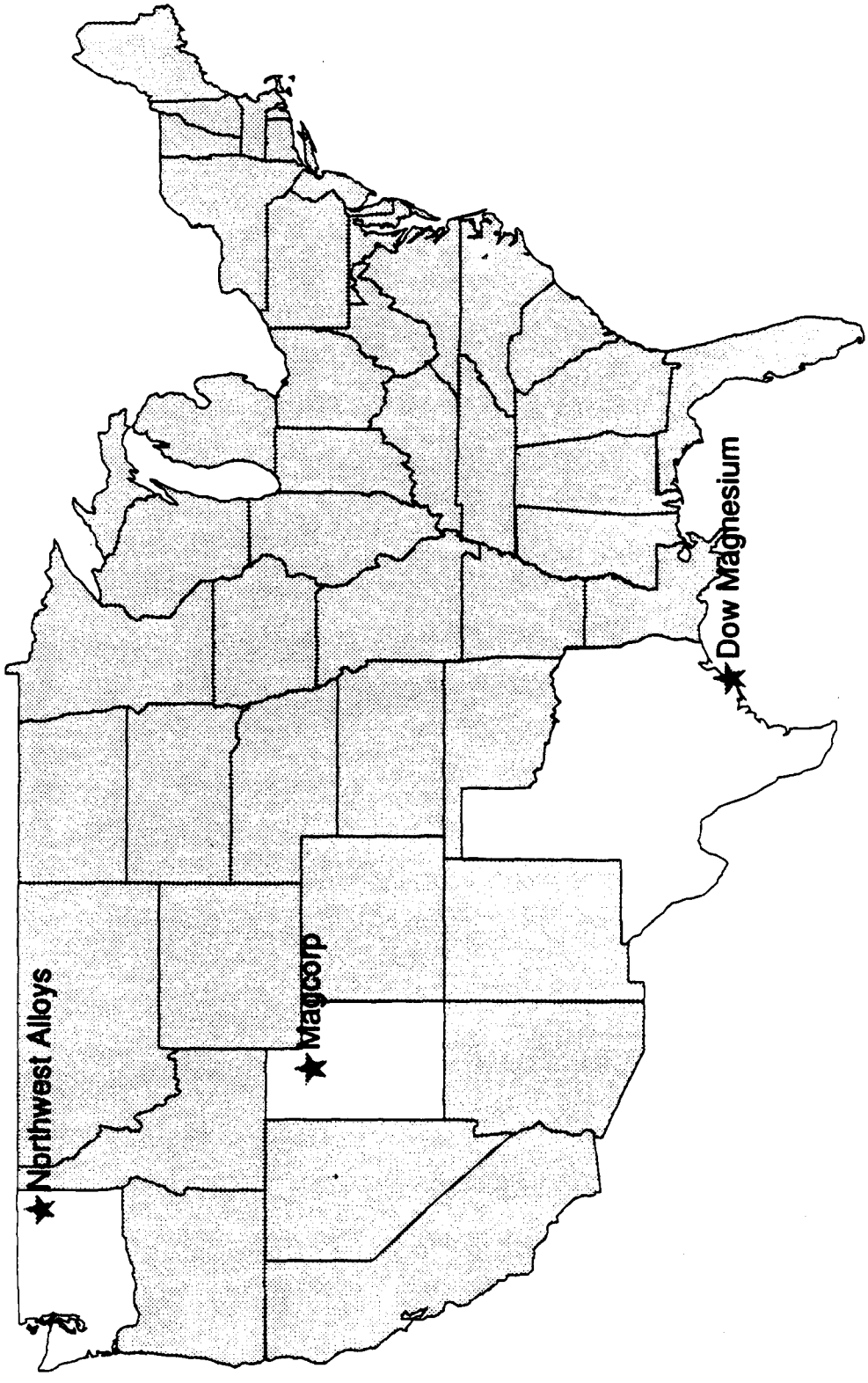

Figure 7
Pure and alloy magnesium: Location of U.S. producers, 1991

Source: U.S. producers.

Table 8
Pure and alloy magnesium: U.S. production accounted for by each producer, by products, 1989-91

(In percent)

Item	1989	1990	1991
* * * * * * *			

Note—Because of rounding, totals may not add to 100 percent.

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

Magcorp 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.[56]

Dow Magnesium

Dow Magnesium, a U.S. producer,[57] is a subsidiary of Dow Chemical Corp., Midland, MI. Dow's production facilities are located in Freeport, TX, on the Gulf Coast.[58] Dow began production of magnesium in 1941 and was the first commercial magnesium producer in the United States.[59] Dow has been the largest U.S. magnesium producer in the

[56] During the period 1983-87, the Salt Lake City region was beset by unusual amounts of rain resulting in major flooding problems, dike breakages, and production reduction and stoppages. In 1983, a flood breached the dikes of the Stansbury pond system causing a loss of brine concentration and threatening operation of the plant. AMAX Magnesium arranged to purchase brine from Kaiser Chemical in Wendover, UT. In 1985, $6-7 million in process changes related to flooding were introduced. In 1986, a second massive dike break rendered the Stansbury pond system useless, threatening the existence of the plant. Other brine sources and reserves at Kaiser Chemical and Leslie Salt in Newark, CA, were secured to continue limited operation. In 1987, a new pond system at Knolls, UT was constructed drawing brine from the Utah State West Desert Pumping Project. A small brine harvest was realized in the summer of 1988 and by 1989, a harvest nearly equal to the demands of the plant was produced.

[57] Dow indicated in its questionnaire response that it ***.

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

[59] Construction of the first plant at Freeport was completed in January 1941; it is situated on 1,500 acres. Construction of the second plant at Freeport was completed in June 1942 on 3,000 acres. The second plant was owned by the U.S. Defense Plants Corp. but operated by Dow. Dow purchased the second plant from the U.S. Government in 1958. There have been no changes in ownership since then.

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.

According to *American Metal Market*, Dow has plans to invest $16 million to add a 50-million pound vertical direct-chill caster that would enable Dow to produce T-bar ingots of 250 pounds and greater, and pure and alloyed round billets.[60]

Dow was the only U.S. producer to ***. ***.

Northwest Alloys

Northwest Alloys, a U.S. producer,[61] is a wholly-owned subsidiary of Aluminum Co. of America (Alcoa). 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 1989, *** percent in 1990, and *** percent in 1991. Open market transactions accounted for *** percent of the company's total shipments in 1989, *** percent in 1990, and *** percent in 1991.

On December 13, 1991, Northwest Alloys announced cutbacks of 50 percent in both capacity and personnel. The planned reduction should have been completed by March 31, 1992.[62] According to the company's press release:

> *This action is a result of extremely depressed conditions in both domestic and foreign markets. Northwest Alloys is unable to participate in foreign markets due to the large amount of Russian magnesium being dumped in both Europe and Asia at extremely low prices in an effort to generate hard currency to support the Russian economy. The over supply of magnesium in the United States and the continuation of the recession has severely affected the domestic market. Northwest Alloys will be manufacturing only that magnesium used by the parent company, Alcoa, which is presently the largest consumer of magnesium in the world.*[63]

U.S. Importers

The two magnesium producers in Canada, Norsk Hydro Canada and Timminco, indicated that virtually all of their sales in the United States are made directly to end users (diecasters, steel desulfurizers, aluminum manufacturers, etc.) and that their customers were the actual importers of record. However, the Canadian producers identified many more importers/purchasers as consignees of the imported merchandise than did the U.S. Customs Service. The Commission therefore requested that the Canadian producers complete the

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[60] *American Metal Market*, Apr. 9, 1990.

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

[62] Northwest Alloys stated ***. ***.

[63] Press release of Northwest Alloys, Dec. 13, 1991.

Commission's importers' questionnaire and supply data as though they were the importer of record (which according to Customs data, they are). Both Norsk Hydro Canada and Timminco supplied the Commission with complete responses.[64] *** U.S. producers of magnesium import magnesium.

Channels of Distribution

Table 9 presents U.S. producers' and Norsk Hydro Canada's U.S. shipments to distributors and end users in 1991. The overwhelming majority of these shipments of magnesium were made to unrelated end users. U.S. producers shipped 91.8 percent of their commodity-grade pure magnesium shipments directly to end users, while 8.2 percent was shipped to distributors. *** U.S. producers' shipments of *** magnesium went directly to ***. *** Norsk Hyro Canada's shipments of *** magnesium went directly to ***.[65]

Table 9
Pure and alloy magnesium: U.S. producers' and Norsk Hydro Canada's U.S. shipments to distributors and end users, by products, 1991

(In metric tons)

Product category	Distributors		End users	
	Related	Unrelated	Related	Unrelated
*	*	*	*	*	*	*

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

[64] For a more detailed discussion of U.S. importers/purchasers, see the "Prices" section later in this report.

[65] For a more detailed discussion, see the "Market Characteristics" section later in this report.

GLOBAL CAPACITY AND PRODUCTION

There are presently 16 manufacturing facilities for the production of pure and alloy magnesium throughout the world (excluding those located on the territory of the former Soviet Union). There are six magnesium production facilities in North America,[66] one in South America,[67] four in Europe,[68] and five in Asia.[69]

Table 10 and figure 8 present annual world production capacity for magnesium as of December 31, 1990, the latest year available. According to U.S. Bureau of Mines estimates, total world production capacity to produce magnesium was 441,700 metric tons in 1990, and total world production was 344,000 metric tons. The United States accounted for 179,000 metric tons or 40.5 percent of global capacity in 1990, and 152,000 metric tons or 44.2 percent of world production.[70]

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

U.S. Capacity, Production, and Capacity Utilization

The Commission requested U.S. pure and alloy magnesium producers to provide data on their average-of-period and end-of-period practical capacity, production, and capacity utilization for 1989-91. The data provided by all three U.S. producers of pure and

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[66] These production facilities are operated by Dow, Magcorp, Northwest Alloys, Norsk Hydro Canada, Timminco, and MagCan. The MagCan Canada 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.

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

[68] These production facilities are operated by Norsk Hydro (Norway), Pechiney (France), Societa Italiano Magnesio (Italy), and Magnohrom (Yugoslavia). In addition to these four plants, there are several magnesium plants located on the territory of the former Soviet Union.

[69] 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. There is a production facility in China with an estimated production capacity of 9,000 metric tons. Details on this facility are not available from the U.S. Bureau of Mines.

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

Table 10
Pure and alloy magnesium: World annual capacity, by sources, as of December 31, 1990

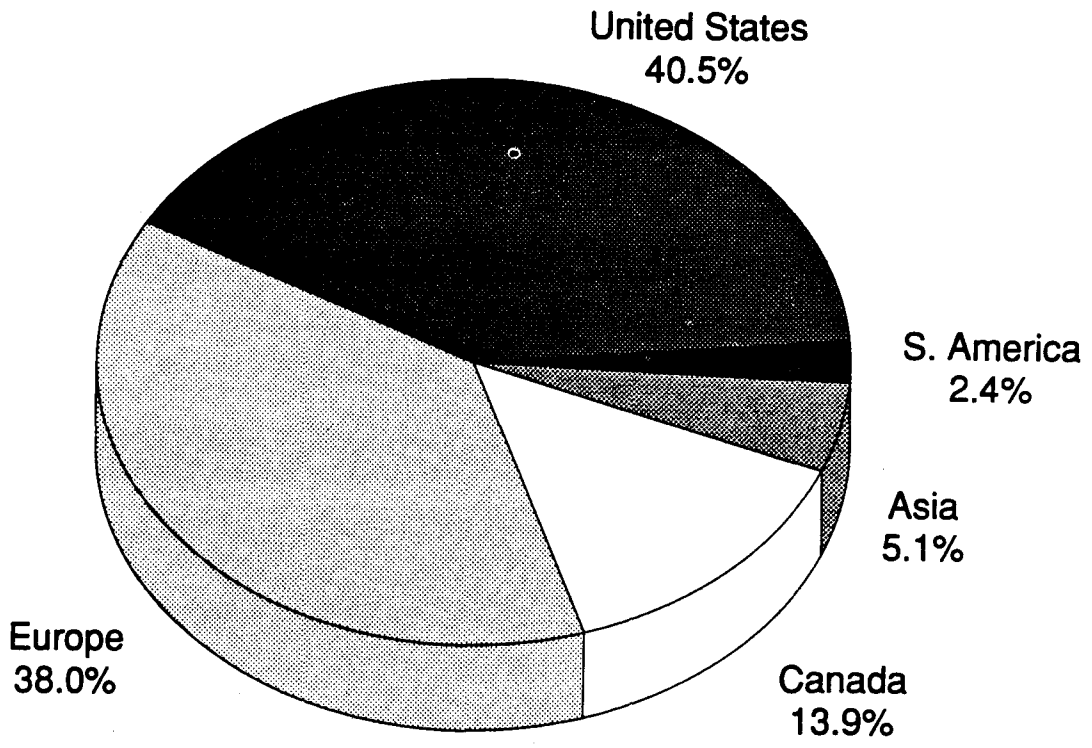
Continent/country	*Capacity*[1]	*Share of world capacity*
	(Metric tons)	*(Percent)*
North America:		
Canada	61,500	13.9
United States	179,000	40.5
Subtotal	240,500	54.4
South America (Brazil)	10,600	2.4
Europe:		
France	15,000	3.4
Italy	10,000	2.3
Norway	41,000	9.3
U.S.S.R.	95,000	21.5
Yugoslavia	7,000	1.6
Subtotal	168,000	38.0
Asia:		
China[2]	9,000	2.0
India	600	0.1
Japan	13,000	2.9
Subtotal	22,600	5.1
Total	441,700	100.0

[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 and Canada may differ from data submitted in response to questionnaires of the U.S. International Trade Commission.
[2] Detailed information on production capacity and production in China is not available from the Bureau of Mines.

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

Source: U.S. Bureau of Mines.

Figure 8
Pure and alloy magnesium: World annual capacity, by sources, as of December 31, 1990



Source: U.S. Bureau of Mines.

alloy magnesium are presented in table 11.[71] Because both pure and alloy magnesium are typically produced on the same plant and equipment and utilize the same workers, both Dow and Magcorp view production capacity as interchangeable among all types of magnesium and allocate capacity based on actual or estimated demand for each type of product.[72] Only production capacity for all magnesium products is presented in the body of this report.[73] See Appendix C for capacity, production, and capacity utilization for pure and alloy magnesium presented separately.

Reported annual average-of-period capacity for all three U.S. producers remained at the same level from 1989 to 1991. Production of pure and alloy magnesium decreased 6.3 percent from 1989 to 1990 and decreased another 6.0 percent from 1990 to 1991. Average-of-period capacity utilization decreased from 88.1 percent in 1989 to 82.6 percent in 1990 and decreased further to 77.6 percent in 1991.[74]

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[71] 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 was 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.

[72] In its questionnaire response Dow stated that "***."

[73] U.S. producers were asked to break out production capacity by product types in their responses to questionnaires of the Commission. ***.

[74] Capacity utilization may have increased in 1992. In an article in *Metals Week* entitled "Mg Production Reverses in April" (which discussed apparent production increases in April 1992), Tim Pretzer, Dow's global group marketing manager, confirmed that Dow has increased production.
(continued...)

Table 11
Pure and alloy magnesium: U.S. producers' capacity,[1] production, and capacity utilization, 1989-91

Item	1989	1990	1991
	Quantity (metric tons)		
Average-of-period capacity[2]	166,474	166,474	166,474
Production:			
Ultra-pure magnesium	***	***	***
Commodity-grade pure magnesium	***	***	***
Total, pure magnesium	***	***	***
Alloy magnesium	***	***	***
Total, all magnesium	146,675	137,462	129,152
	Capacity utilization ratio (percent)		
Average-of-period[2]	88.1	82.6	77.6

[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. The capacity was reported using an industry average of 168 hours per week and 52 weeks per year.

[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.

Dow *** annual production capacity at *** metric tons during ***, Magcorp *** annual production capacity at *** metric tons, and Northwest Alloys *** annual production capacity at *** metric tons.[75]

[74] (...continued)
"We're up, there's no doubt about that. We're making all we can." *Metals Week* (June 8, 1992, p. 2)

[75] Dow had an average-of-period capacity utilization rate of *** percent in 1989, *** percent in 1990, and *** percent in 1991. Magcorp had an average-of-period capacity utilization rate of *** percent in 1989, *** percent in 1990, and *** percent in 1991. Northwest Alloys had an average-of-period capacity utilization rate of *** percent in 1989, *** percent in 1990, and *** percent in 1991.

U.S. Producers' Shipments

Pure and Alloy Magnesium

Data for U.S. producers' shipments of pure and alloy magnesium, by products, are presented in table 12 and figure 9. According to data collected from the Commission's questionnaires, U.S. producers' U.S. shipments of pure and alloy magnesium decreased 9.6 percent in quantity from 1989 to 1990, and decreased 10.2 percent from 1990 to 1991. The value of U.S. producers' U.S. shipments of pure and alloy magnesium decreased 13.5 percent from 1989 to 1990, and decreased 24.3 percent from 1990 to 1991. The unit value of U.S. producers' domestic shipments of pure and alloy magnesium decreased 4.0 percent from 1989 to 1990 and decreased 16.1 percent from 1990 to 1991.

Intracompany transfers of pure and alloy magnesium represented *** percent of U.S. producers' total shipments in 1989, *** percent in 1990, and *** percent in 1991. Export shipments of pure and alloy magnesium represented *** percent of total U.S. producers' total shipments in 1989, *** percent in 1990, and *** percent in 1991.

U.S. producers' U.S. shipments by products and companies are presented in table 13.

Ultra-pure Magnesium

U.S. producers' domestic shipments of ultra-pure magnesium increased *** percent in quantity from 1989 to 1990 but decreased *** percent from 1990 to 1991. The value of U.S. producers' domestic shipments of ultra-pure magnesium increased *** percent from 1989 to 1990 but decreased *** percent from 1990 to 1991. The unit value of U.S. producers' domestic shipments of ultra-pure magnesium increased *** percent from 1989 to 1990 but decreased *** percent from 1990 to 1991. There were no intracompany transfers of ultra-pure magnesium during the period 1989-91. Export shipments of ultra-pure magnesium represented *** percent of total U.S. producers' shipments of such magnesium in 1989, *** percent in 1990, and *** percent in 1991.

Commodity-grade Pure Magnesium

U.S. producers' domestic shipments of commodity-grade pure magnesium decreased *** percent in quantity from 1989 to 1990 and decreased *** percent from 1990 to 1991. The value of U.S. producers' domestic shipments of commodity-grade pure magnesium decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991. The unit value of U.S. producers' domestic shipments of such magnesium decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.

Intracompany transfers of commodity-grade pure magnesium represented *** percent of U.S. producers' total shipments in 1989, *** percent in 1990, and *** percent in 1991. Export shipments of commodity-grade pure magnesium represented *** percent of total U.S. producers' shipments of all magnesium in 1989, *** percent in 1990, and *** percent in 1991.

Table 12
Pure and alloy magnesium: Shipments of U.S. producers, by products, 1989-91

Item	1989	1990	1991
	Quantity (metric tons)		
Ultra-pure magnesium:			
* * *	*	*	*
Commodity-grade pure magnesium:			
* * *	*	*	*
Alloy magnesium:			
* * *	*	*	*
Total, all magnesium:			
Company transfers	***	***	***
Domestic shipments	***	***	***
Subtotal, U.S. shipments	97,526	88,184	79,193
Exports	***	***	***
Total	***	***	***
	Value (1,000 dollars)		
Ultra-pure magnesium:			
* * *	*	*	*
Commodity-grade pure magnesium:			
* * *	*	*	*
Alloy magnesium:			
* * *	*	*	*
Total, all magnesium:			
Company transfers	***	***	***
Domestic shipments	***	***	***
Subtotal, U.S. shipments	320,858	277,530	210,145
Exports	***	***	***
Total	***	***	***

Table continued.

Table 12—*continued*
Pure and alloy magnesium: Shipments of U.S. producers, by products, 1989-91

Item	1989	1990	1991
	Unit value (per pound)		
Ultra-pure magnesium:			
• • •	*	*	* *
Commodity-grade pure magnesium:			
* • •	*	*	* •
Alloy magnesium:			
* • *	*	*	* *
Average, all magnesium:			
Company transfers	***	***	***
Domestic shipments	***	***	***
Average, U.S. shipments	$1.49	$1.43	$1.20
Exports	***	***	***
Average, total shipments	***	***	***

[1] Not applicable.

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

Figure 9
Pure and alloy magnesium: Shipments of U.S. producers, by types of shipments, 1989-91

• * • * * * *

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

Table 13
Pure and alloy magnesium: U.S. shipments by products and companies, 1989-91

(In metric tons)

Item	1989	1990	1991
Ultra-pure 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	97,526	88,184	79,193

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

Alloy Magnesium

U.S. producers' domestic shipments of alloy magnesium increased *** percent in quantity from 1989 to 1990 but decreased *** percent from 1990 to 1991. The value of U.S. producers' domestic shipments of alloy magnesium increased *** percent from 1989 to 1990 but decreased *** percent from 1990 to 1991. The unit value of U.S. producers' domestic shipments of alloy magnesium decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.

There were no intracompany transfers of alloy magnesium during the period 1989-91. Export shipments of alloy magnesium represented *** percent of total U.S. producers' shipments of such magnesium in 1989, *** percent in 1990, and *** percent in 1991.

U.S. Producers' Export Shipments

Exports shipments accounted for a significant share of total U.S. producers' shipments of pure and alloy magnesium during the period 1989-91. Exports shipments (based on quantity) accounted for *** percent of U.S. producers' total shipments in 1989, *** percent in 1990, and *** percent in 1991. *** was the largest U.S. exporter throughout this period, with exports of *** magnesium accounting for *** percent of its total shipments in ***, *** percent in 1990, and *** percent in 1991. *** exports accounted for *** percent of its total shipments in 1989, *** percent in 1990, and *** percent in 1991. *** had exports accounting for *** percent of its total shipments in 1989, *** percent in 1990, and *** percent in 1991. In December 1991, Northwest Alloys announced that it was withdrawing from open-market export sales.

The United States was by far a net exporter of commodity-grade pure magnesium in each of the years 1989-91, ***. The United States was a net *** of alloy magnesium in 1989 and 1990, ***.

U.S. Producers' Inventories

Data for U.S. producers' inventories of pure and alloy magnesium are presented in table 14. According to data collected from the Commission's questionnaires, end-of-period inventories of pure and alloy magnesium increased 19.2 percent from 1989 to 1990 and 10.7 percent from 1990 to 1991. End-of-period inventories of ultra-pure magnesium increased *** percent from 1989 to 1990 and *** percent from 1990 to 1991. End-of-period inventories of commodity-grade pure magnesium increased *** percent from 1989 to 1990 and *** percent from 1990 to 1991. End-of-period inventories of alloy magnesium increased *** percent from 1989 to 1990 and *** percent from 1990 to 1991.

End-of-period inventories of pure and alloy magnesium as a share of U.S. production increased throughout the period of investigation—from 14.2 percent in 1989 to 18.1 percent in 1990 and 21.3 percent in 1991. End-of-period inventories of pure and alloy magnesium as a share of U.S. shipments also increased throughout the period of investigation—from 21.4 percent in 1989 to 28.2 percent in 1990 and 34.7 percent in 1991. End-of-period inventories of pure and alloy magnesium as a share of total shipments also increased throughout the period of investigation—from *** percent in 1989 to *** percent in 1990 and *** percent in 1991.

Table 14
Pure and alloy magnesium: U.S. producers' end-of-period inventories, by products, 1989-91

Item	1989	1990	1991
	Quantity (metric tons)		
Ultra-pure magnesium	***	***	***
Commodity-grade pure magnesium	***	***	***
Alloy magnesium	***	***	***
Total	20,825	24,830	27,487
	Ratio of total inventories to— (percent)		
Production	14.2	18.1	21.3
U.S. shipments[1]	21.4	28.2	34.7
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.

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

The Commission requested that U.S. producers provide separate employment, wages, and total compensation data for workers producing pure and alloy magnesium. Since the same workers produce both products, U.S. producers provided allocations based on actual production. Therefore, U.S. employment data provided by all three U.S. producers of pure and alloy magnesium presented in the body of this report are for total workers producing pure and alloy magnesium (table 15). See Appendix C for pure and alloy magnesium data presented separately. According to data collected from the Commission's questionnaires, the number of production and related workers (PRWs) producing pure and alloy magnesium decreased 4.2 percent from 1989 to 1990 and decreased 4.9 percent from 1990 to 1991. The number of hours worked by PRWs producing pure and alloy magnesium decreased 4.4 percent from 1989 to 1990 and decreased 5.5 percent from 1990 to 1991.

Wages paid to PRWs increased 0.7 percent from 1989 to 1990 but decreased 3.5 percent from 1990 to 1991. Hourly wages paid to PRWs increased 5.3 percent from 1989 to 1990 and increased 2.1 percent from 1990 to 1991.

Total compensation paid to PRWs increased 3.6 percent from 1989 to 1990 but decreased 5.1 percent from 1990 to 1991. Hourly total compensation paid to PRWs increased 8.4 percent from 1989 to 1990 and increased 0.4 percent from 1990 to 1991.

Table 15
Average number of production and related workers (PRWs) producing pure and alloy magnesium, hours worked,[1] wages and total compensation paid to such employees, hourly wages and total compensation paid, productivity, and unit labor costs, 1989-91[2]

Item	1989	1990	1991
Average number of PRWs	1,822	1,746	1,660
Hours worked (1,000 hours)	4,016	3,839	3,628
Wages paid ($1,000)	$56,737	$57,115	$55,120
Total compensation paid ($1,000)	$75,301	$78,025	$74,055
Hourly wages paid	$14.13	$14.88	$15.19
Hourly total compensation paid	$18.75	$20.32	$20.41
Productivity (metric tons per 1,000 hours)	36.5	35.8	35.6
Unit labor costs[3] (per metric ton)	$513.39	$567.61	$573.39

[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.

Productivity (metric tons per 1,000 hours) decreased 1.9 percent from 1989 to 1990 and decreased 0.6 percent from 1990 to 1991. Unit labor costs increased 10.6 percent from 1989 to 1990 and increased 1.0 percent from 1990 to 1991.

Magcorp's primary and alloy magnesium production employees are members of the United Steelworkers of America, Local 8319. Magcorp indicated ***. ***.

Dow's production employees are members of the International Union of Operating Engineers, Local 564. Dow indicated ***.

Northwest Alloys indicated that its production and related workers are not union affiliated. Northwest Alloys indicated ***. ***.

Financial Experience of U.S. Producers

U.S. producers of pure magnesium and alloy magnesium provided financial data on their operations as shown in the following tabulation:

U.S. producer	Ultra-pure magnesium	Commodity-grade pure magnesium	Alloy magnesium
Dow	No[1]	Yes	Yes
Magcorp	Yes	Yes	Yes
Northwest Alloys	No[1]	Yes	No[1]

[1] Does not produce.

The above companies account for 100 percent of U.S. production of pure and alloy magnesium. They have substantial differences in production levels and, at times, significant differences in product costs. Therefore, presentation of data in the aggregate may mask important differences. Accordingly, profit-and-loss and manufacturing cost[76] data for each producer are presented separately as well as in the aggregate.

Data for Dow Chemical, the major producer of both pure magnesium and magnesium alloys, were verified by commission staff. Only minor discrepancies were found. The data for the petitioner (Magcorp) did not need verification since its only product is magnesium subject to this investigation, and the financial results of the company's operations were audited by an independent certified public accounting firm. All of Dow's, Northwest Alloys', and Magcorp's overall establishment revenues are from sales of either pure magnesium or alloy magnesium. Therefore, such data are referred to as pure and alloy magnesium operations, instead of establishment operations.

Magcorp is the only U.S. producer of ultra-pure magnesium. Since annual sales of ultra-pure magnesium only represented *** percent of Magcorp's commodity-grade pure magnesium sales from 1989 to 1991, they are being included with the data for pure magnesium operations.

[76] Manufacturing costs are similar to but not the same as cost of sales. Manufacturing costs are the actual costs incurred during a period to produce goods for sale, and consist of three components--direct materials, direct labor, and factory overhead. Factory overhead typically consists of many cost items, but here it is subdivided into the four major components associated with magnesium production—energy, supplies/maintenance, indirect labor, and other. Most manufacturers track these costs closely, since they directly affect profitability.

Pure and Alloy Magnesium Operations

Data on the pure and alloy magnesium operations of the three U.S. producers are presented company-by-company in tables 16 through 18, and in the aggregate in table 19.

Dow is the major U.S. producer of both pure magnesium and magnesium alloys, and accounted for *** of the sales from 1989 to 1991. The company is a world leader in the production of chemicals and plastics, and has operations in 32 countries besides the United States. A reflection of Dow's global nature is the fact that about half of its $24.7 billion in assets and 1991 net sales of $18.8 billion are associated with foreign operations.

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. No magnesium 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.

As is shown in table 16, Dow's pure and alloy magnesium operations were *** in 1989 before *** in 1990 and *** in 1991. Net sales, gross profits, and operating and net income levels *** during the three-year period. Dow attributes *** operating results to ***, which it views as a cyclical occurrence.

Magcorp's overall pure and alloy magnesium financial data are shown in table 17. Like Northwest Alloys, it has one plant and that plant only produces 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 ***; since then, it has ended ***.

Net sales, gross profits, and operating profits *** from 1989 to 1990 and then *** in 1991. Net income levels *** in both years because of ***.

Northwest Alloys, a subsidiary of Alcoa, produces only magnesium at its sole plant in Addy, WA. Alcoa is an international producer of aluminum, and has operations in 21 countries besides the United States. Over 40 percent of its $11.2 billion in assets and 1991 net sales of $9.9 billion was associated with foreign operations. Unlike Dow and Magcorp, it produces magnesium by the silicothermic process. Instead of using brine as a feed material, it uses dolomite, which is mined at a nearby site.

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, Northwest Alloys' production became excess to Alcoa's needs. Even though Northwest Alloys has been operating at reduced production levels for some time, Alcoa only uses about *** percent of Northwest Alloys' production of magnesium. The remainder of Northwest Alloys' magnesium production is sold to third parties.

Table 16
Income-and-loss experience of Dow[1] on its pure and alloy magnesium operations, fiscal years 1989-91

Item	*1989*	*1990*	*1991*
*	*	*	*

[1] Dow's fiscal year ends ***.

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

Table 17
Income-and-loss experience of Magcorp[1] on its pure and alloy magnesium operations, fiscal years 1989-91

Item	*1989*	*1990*	*1991*
*	*	*	*

[1] Magcorp switched fiscal year ends from *** to ***. The *** data for fiscal year ending *** has been annualized for comparison purposes.

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

Table 18
Income-and-loss experience of Northwest Alloys[1] on its pure magnesium operations,[2] fiscal years 1989-91

Item	*1989*	*1990*	*1991*
*	*	*	*

[1] Northwest Alloys' fiscal year ends ***.

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

Table 19
Income-and-loss experience of U.S. producers[1] on their pure and alloy magnesium operations, fiscal years 1989-91

Item	1989	1990	1991
	Value (1,000 dollars)		
Net sales	***	***	***
Cost of goods sold	***	***	***
Gross profit	***	***	***
SG&A[2]	***	***	***
Operating income	***	***	***
Interest expense	***	***	***
Other income or (expense), net	***	***	***
Net income before taxes	***	***	***
Depreciation and amortization	***	***	***
Cash flow[3]	***	***	***
	Ratio to net sales (percent)		
Cost of goods sold	***	***	***
Gross profit	***	***	***
SG&A[2]	***	***	***
Operating income	***	***	***
Net income before taxes	***	***	***
	Number of firms reporting		
Operating losses	***	***	***
Net losses	***	***	***
Data	3	3	3

[1] The producers are Dow, Magcorp, and Northwest Alloys.
[2] Selling, general, and administrative expenses.
[3] 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.

Northwest Alloys' operating results are shown in table 18. The firm's trends *** in that net sales, gross profits, and operating and net incomes *** from 1989 to 1991. Net sales *** during the period, and the company *** at the gross profit level in both 1990 and 1991.

Perhaps the most striking aspect of Northwest Alloys' financial results is the ***, which is the result of Alcoa's ***. ***. Northwest Alloys ***. The company ***. However, with ***, decisions to *** will be difficult.[77]

The producers' combined income-and-loss experience on their pure and alloy magnesium operations are shown in table 19. These data display the ***. Sales ***, gross profits ***, and operating income, net income, and cash flow ***.[78]

Operations on Pure Magnesium

Dow is the largest of the three U.S. producers of pure magnesium, and accounted for *** of the sales revenues during the period of the investigations. Almost *** percent of its revenues in every period were the result of export sales. The unit sales values of these sales were ***, and the profitability of domestic and foreign sales were ***. As shown in table 20, financial indicators *** from 1989 to 1991. Sales ***.

In 1990, *** in unit sales value and sales volume of ***, coupled with *** in unit cost of sales, resulted in *** in both the gross profit margin and in gross profits. This *** in turn flowed through to operating and net income levels, resulting in ***. Results *** in 1991. Net sales *** as unit sales values *** and sales volumes ***. The *** became ***. Since SG&A and other expenses ***, operating and net incomes ***. As a result, Dow, which had *** in 1989, had *** in 1991.

Dow's manufacturing costs (table 21) *** from 1989 to 1990 and then *** in 1991. The largest single cost component is ***, which, on a unit basis, was ***. Within ***, the largest cost items are ***.[79]

Although variances are ***, they are ***. On a per-pound basis they *** from *** in 1989 to *** in 1990, and accounted for *** in per-unit manufacturing cost between the two years. The main reason for the *** was the ***.

The results of Magcorp's pure magnesium operations are shown in table 22. Net sales *** in 1989 to *** in 1990 because of ***. As a result, gross profit and operating income levels ***. Additionally, Magcorp's *** became *** due in part to ***. Results in 1991 were ***. Net sales *** due to ***; gross profit margins ***; and operating income ***. ***. ***.

Magcorp's manufacturing costs are shown in table 23. Its total costs ***, and were *** than Dow's. The *** between Magcorp's and Dow's costs were ***.

---

[77] Telephone conversation with Northwest Alloy company officials on July 28, 1992.

[78] For comparison purposes, operating income margins as a percent of sales for nonferrous metal companies with assets over $25 million from the Quarterly Financial Reports of the U.S. Department of Commerce were 9.8 percent in 1989, 6.9 percent in 1990, and 5.0 percent in 1991.

[79] Manufacturing companies typically have a "standard" per-unit cost for each item produced. Variances are the differences between these standard costs and actual costs.

Table 20
Income-and-loss experience of Dow on its operations producing pure magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

Table 21
Dow's per-unit manufacturing costs on its operations producing pure magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

Table 22
Income-and-loss experience of Magcorp on its operations producing pure magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

Table 23
Magcorp's per-unit manufacturing costs on its operations producing pure magnesium, fiscal years 1989-91

Item	1989	1990	1991
* * * * * * *			

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

Magcorp's direct materials costs *** because ***. The company's process for ***. While Magcorp ***, it had to ***. When ***, Magcorp ***. As any company ***. Such is the case with Magcorp.

While the per-pound cost of supplies/maintenance *** over time, it was still *** of Dow's. This cost primarily relates to ***.

The financial results of Northwest Alloys' pure magnesium operations are shown in table 18. In 1990, *** in unit sales value and *** in sales volume led to *** in net sales, and ***. In 1991, net sales *** as a *** in unit sales value *** in sales volume and a *** in unit cost of sales. *** at the gross profit level and operating level ***.

Other expenses consist of ***. Although this obviously directly affects ***, it also has the effect of ***, and therefore ***, as explained below.

While some of Northwest Alloys' per-pound manufacturing costs (table 24) were ***. ***. Northwest Alloys' direct materials (consisting primarily of ***) are ***. The unit cost of this item *** in 1989 to *** in 1991 because of ***.

The unit cost of Northwest Alloys' other factory overhead ***. A major component of this cost is ***. Since the plant assets ***. Primarily as a result of this ***, other factory overhead ***. Therefore, Northwest Alloys' *** in manufacturing costs is somewhat ***.

Aggregate profit-and-loss data for the three producers of pure magnesium are presented in table 25. Net sales *** from 1989 to 1991 because of *** in sales volume and a *** in per-unit sales value. As a result, in 1991 the three producers combined had ***.

Operations on Alloy Magnesium

Dow is the *** U.S. producer of alloy magnesium, and accounted for *** of *** sales and production from 1989 to 1991. About *** of its alloy magnesium sales were ***, and unit sales prices for *** sales were comparable to those for *** sales. Dow's operations on alloys (table 26), *** its operations on pure magnesium, were *** in 1989 and 1990, ***.

Table 24
Northwest Alloys' per-unit manufacturing costs on its operations producing pure magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

Table 25
Income-and-loss experience of U.S. producers[1] on their operations producing pure magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

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

Table 26
Income-and-loss experience of Dow on its operations producing alloy magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

While net sales *** from 1989 to 1990 because of ***. When comparing 1991 to 1990, the effect of *** in both sales volume and unit prices together with *** in SG&A expense resulted in *** in net sales, and *** at the operating and net income levels.

Dow's per-unit SG&A expense for its magnesium alloys was ***. This is because Dow ***. The company ***. As a result, the costs are ***.

Dow's manufacturing costs for alloy magnesium (table 27) and pure magnesium are ***. As with pure magnesium, the reason for *** in this cost category was ***.

Magcorp is the other U.S. producer of alloy magnesium. Net sales (table 28) *** from 1989 to 1990 as a ***. The *** in per-unit sales value did result in ***. Net sales *** in 1991 as a ***. ***. *** costs resulted in *** in 1990, and pushed the 1991 ***. All in all, the results of Magcorp's alloy operations were *** to those of its pure magnesium operations.

Magcorp's manufacturing costs for its magnesium alloy operations are shown in table 29. These costs ***.

Aggregate profit-and-loss data for the two producers of alloy magnesium are presented in table 30. The results are ***.

Investment in Productive Facilities and Return on Assets

Data on investment in productive facilities and return on assets are shown in table 31. The *** in book value of fixed assets and total assets ***.

Capital Expenditures

The capital expenditures of the three producers, shown in table 32, are ***. In addition to ***, the company ***. ***.

Research and Development Expenses

The research and development expenditures of the three producers are shown in table 33. Dow's expenditures *** from 1989 to 1991, while Northwest Alloys' ***. Alcoa's overall R&D expenses *** from *** of sales to *** of sales from 1989 to 1991; Northwest Alloy's comparable figures are *** percent. Dow's overall R&D expenses *** from *** percent of sales to *** percent during the same time period, while its magnesium operations' figures were *** percent.

Capital and Investment

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of magnesium from Canada or Norway 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 shown in Appendix D.

Table 27
Dow's per-unit manufacturing costs on its operations producing alloy magnesium, fiscal years 1989-91

Item	*1989*	*1990*	*1991*
•	•	•	•	•	•	•

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

Table 28
Income-and-loss experience of Magcorp on its operations producing alloy magnesium, fiscal years 1989-91

Item	*1989*	*1990*	*1991*
•	•	•	•	•	•	•

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

Table 29
Magcorp's per-unit manufacturing costs on its operations producing alloy magnesium, fiscal years 1989-91

Item	*1989*	*1990*	*1991*
•	•	•	•	•	•	•

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

Table 30
Income-and-loss experience of U.S. producers[1] on their operations producing alloy magnesium, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

[1] The producers are Dow and Magcorp.

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

Table 31
Value of assets and return on assets of U.S producers' operations on pure and alloy magnesium, by products, fiscal years 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

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

Table 32
Capital expenditures by U.S. producers of pure and alloy magnesium, by products, fiscal years 1989-91

(In 1,000 dollars)

Item	1989	1990	1991
*	*	*	*	*	*	*

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

Table 33
Research and development expenses of U.S. producers of pure and alloy magnesium, by products, fiscal years 1989-91

(In 1,000 dollars)

Item	1989	1990	1991
*	*	*	*	*	*	*

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

CONSIDERATION OF ALLEGED THREAT OF MATERIAL INJURY

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the merchandise, the Commission shall consider, among other relevant economic factors*[80]*—*
>
> *(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,*

[80] 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."

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

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

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

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

(IX) in any investigation under this 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.[51]

The available information on the nature of the subsidies found by the Department of Commerce (item (I) above) is presented in the section of this report entitled "Subsidies;" 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." Item (IX) above is not relevant in these investigations.

[51] 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."

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.

U.S. Importers' Inventories

Norsk Hydro Canada, classified by the U.S. Customs Service as the importer of record for its magnesium shipped to the United States, maintains inventories of pure and alloy magnesium both in Canada and the United States. Data presented in table 34 are inventories of Norsk Hydro Canada maintained in the United States. The data do not include inventories of magnesium held by the U.S. customers of Norsk Hydro Canada.

Table 34
Pure and alloy magnesium: End-of-period inventories of Norsk Hydro Canada, by products, 1989-91[1]

(In metric tons)

Item	1989	1990	1991
•	•	•	•	•	•	•

[1] End-of-period inventories as presented are maintained by Norsk Hydro Canada in the United States. The data do not include inventories of magnesium held by the U.S. customers of Norsk Hydro Canada.

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

Ability of Foreign Producers to Generate Exports and Availability of Export Markets Other Than the United States[82]

There are currently two manufacturers of pure and alloy magnesium in Canada[83]—Norsk Hydro Canada and Timminco Metals (Timminco). Norsk Hydro Canada's production capacity, production, capacity utilization, home-market shipments, and exports of pure and alloy magnesium are presented in table 35.[84] Presented separately in tables 36 and 37 are data concerning pure and alloy magnesium, respectively.

Norsk Hydro Canada

Norsk Hydro Canada, a Canadian manufacturer, is a wholly-owned subsidiary of Norsk Hydro Norway with headquarters and manufacturing facilities in Becancour, Quebec (on the Saint Lawrence River midway between Montreal and Quebec). The plant was completed in 1989, and the first batch of magnesium was produced on November 16, 1989.[85] Norsk Hydro Canada also has an office in Detroit, MI. No production occurs at this facility. This office provides technical assistance to customers and pursues new applications development.[86]

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[82] The Commission also sent a telegram soliciting data from the U.S. Embassy in Ottawa 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. Because the foreign producers in Canada are being represented by counsel in these investigations, there was little additional information that could be provided by the local U.S. embassy.

[83] Magnesium Co. of Canada (MagCan) completed a 12,500 metric ton-per-year plant in Alberta in 1990. However, as the plant began operations, the company encountered major technical problems at the facility. The plant only produced trial batches, and never began full-scale commercial production. In April 1991, Alberta Natural Gas Co. Ltd. (ANG), the project's primary financial backer, announced that it would no longer fund the MagCan plant. ANG cited high operating costs and high interest rates as factors in its decision. Since April 1991 the MagCan plant has been idle, and ANG is in the process of attempting to find new ownership for the plant. *Mineral Industry Surveys*, "Magnesium in the First Quarter 1991," U.S. Bureau of Mines, May 13, 1991.

Noranda Minerals Inc. is reportedly seeking additional partners to assist in financing the "Magnola" project, which "involves a potential $500 million magnesium extraction plant" that would extract magnesium from the large supply of asbestos tailings that remain in the Thetford Mines area of southeastern Quebec. ("Noranda Minerals Now Owns Magnola", *Magnesium Monthly Review*, vol. 21, no. 5, covering news for May 1992, appearing in exhibit 39 of the prehearing brief of Norsk Hydro Canada Inc.)

[84] Timminco's data are not presented because Commerce ruled in its final determination that U.S. imports of magnesium from Timminco were fairly traded.

[85] ***.

[86] The office is staffed by *** people who are applications development engineers and metallurgists. This office provides Norsk Hydro customers (mainly diecasters located in the United States and potential end-use customers such as the "Big Three" U.S. automakers) with technical support and market development efforts.

Table 35
Pure and alloy magnesium: Norsk Hydro Canada's production capacity, production, capacity utilization, home-market shipments, and exports, 1989-91, and projections for 1992

(In metric tons, unless otherwise noted)

Item	Actual—			Projection—
	1989	1990	1991	1992
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to a request for information from foreign producers.

Table 36
Pure magnesium: Norsk Hydro Canada's production capacity, production, capacity utilization, home-market shipments, and exports, 1989-91, and projections for 1992

(In metric tons, unless otherwise noted)

Item	Actual—			Projection—
	1989	1990	1991	1992
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to a request for information from foreign producers.

Table 37
Alloy magnesium: Norsk Hydro Canada's production capacity, production, capacity utilization, home-market shipments, and exports, 1989-91, and projections for 1992

(In metric tons, unless otherwise noted)

Item	Actual—			Projection—
	1989	1990	1991	1992
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to a request for information from foreign producers.

During 1990, production of the plant was gradually increased. Since startup, the plant has undergone ***. The nameplate capacity of the plant is *** metric tons per year. The current annual practical capacity with equipment in place is *** metric tons. Production in 1991 was *** metric tons. In 1991, the plant ran at an average annual capacity utilization rate of *** percent. On November 26, 1991, Norsk Hydro Canada announced that it would "temporarily" reduce annual production to approximately 20,000 metric tons. The reduced production level ***.

Norsk Hydro Canada had inventories of pure and alloy magnesium of *** metric tons at the end of 1989, *** metric tons at the end of 1990, and *** metric tons at the end of 1991. In response to a question regarding Norsk Hydro Canada's plans to add, expand, curtail, or shut down production capacity or production, the company stated that it ***.[87]

Timminco

Timminco,[88] a Canadian manufacturer, is a division of Timminco Limited, which is *** owned by Timmins Investments Limited of Toronto, Ontario. Timminco has one manufacturing facility located in Haley, Ontario. Timminco built the first magnesium production facility in Canada and has been producing magnesium since 1941. Timminco is a relatively small niche producer, focusing on a range of ultra-pure magnesium products, and a product called MAG-CAL (70 percent magnesium and 30 percent calcium) used in lead refining.

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[87] Diecasters convert about 40 percent of the primary alloy they melt into scrap. Aluminum diecasters have a well-established and efficient system for handling and reprocessing scrap. This is not so for magnesium diecasters, which puts them at a competitive disadvantage. Norsk Hydro Canada has developed technology that will allow it to collect and recycle scrap at a lower cost than what was previously available. This program will give diecasters a much better return on their scrap, and will allow magnesium diecasters to compete more efficiently with producers of other materials. ***.

[88] In Commerce's final CVD determination regarding Canada, Timminco's estimated net subsidy margin was found to be zero, and in Commerce's final antidumping determination regarding Canada, Timminco was found to have a dumping margin of 0.0 percent. Therefore, for purposes of this report, imports from Timminco, having been deemed to be fairly traded by Commerce, as well as Timminco's foreign industry data, have been excluded from data presented for "Canada." Timminco's imports are included in the "all other sources" category throughout this report.

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

U.S. Imports

Data on U.S. imports have been compiled from data submitted in response to questionnaires of the Commission and from official statistics of Commerce. Table 38 presents U.S. imports for consumption of pure and alloy magnesium, by products and sources, for the period 1989-91.[89] See Appendix C for a presentation of data concerning all pure magnesium. Imports of pure and alloy magnesium from Norsk Hydro Canada have *** between 1989 and 1991.

Subject Imports[90]

Pure and Alloy Magnesium

The quantity of subject imports of pure and alloy magnesium increased *** percent from 1989 to 1990 and increased *** percent from 1990 to 1991. The value of subject imports increased *** percent from 1989 to 1990 and increased *** percent from 1990 to 1991. The average unit value (dollars per pound) of subject imports decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.

Ultra-pure Magnesium

There were no subject imports of ultra-pure magnesium from 1989 to 1991. ***.

Commodity-grade Pure Magnesium

The quantity of imports of commodity-grade pure magnesium from Norsk Hydro Canada increased *** percent from 1989 to 1990 and increased *** percent from 1990 to 1991. The value of subject imports increased *** percent from 1989 to 1990 and increased *** percent from 1990 to 1991. The average unit value (dollars per pound) of subject imports decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.

---

[89] HTS classifications do not differentiate imports of magnesium by grade; therefore, imports of ultra-pure and commodity-grade pure magnesium from "other sources" have been classified as commodity-grade pure magnesium. As a result, imports of ultra-pure magnesium presented throughout this section may be slightly understated and imports of commodity-grade pure magnesium may be slightly overstated. Import data for Timminco were differentiated by grade and are included in their proper category.

[90] Excludes imports from Timminco.

Table 38
Pure and alloy magnesium: U.S. imports, by products and sources, 1989-91[1]

Item	1989	1990	1991
	Quantity (metric tons)		
• • •	•	•	•
Total, all magnesium:			
Norsk Hydro Canada	***	***	***
All other sources[2]	***	***	***
Total, all imports	8,794	22,889	23,240
	Value (1,000 dollars)		
• • •	•	•	•
Total, all magnesium:			
Norsk Hydro Canada	***	***	***
All other sources[2]	***	***	***
Total, all imports	31,755	73,703	64,301
	Unit value (per pound)		
• • •	•	•	•
Total, all magnesium:			
Norsk Hydro Canada	***	***	***
All other sources[2]	***	***	***
Total, all imports	$1.64	$1.46	$1.26

[1] See footnote no. 94 in text for information relevant to this table.
[2] Includes data for all other countries plus Timminco.

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.

Alloy Magnesium

The quantity of imports of alloy magnesium from Norsk Hydro Canada increased from zero in 1989 to *** metric tons in 1990 and *** to *** metric tons in 1991. The value of subject imports increased from zero in 1989 to *** in 1990 and *** to *** in 1991. The average unit value (dollars per pound) of subject imports *** by *** percent from 1990 to 1991.

Current Import Orders

Norsk Hydro Canada was asked to provide information on whether it had arranged for the importation into the United States of pure and alloy magnesium after December 31, 1991. Norsk Hydro Canada indicated that ***.

All Other Sources[91]

Pure and Alloy Magnesium

The quantity of imports of pure and alloy magnesium from all other sources decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991. The value of such imports decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991. The average unit value (dollars per pound) of imports from all other sources increased *** percent from 1989 to 1990 and increased *** percent from 1990 to 1991.

Ultra-pure Magnesium

The quantity of imports of ultra-pure magnesium from all other sources *** by *** percent from 1989 to 1990 but *** by *** percent from 1990 to 1991.[92] The value of such imports *** by *** percent from 1989 to 1990 but *** by *** percent from 1990 to 1991. The average unit value (dollars per pound) of imports from all other sources *** by *** percent from 1989 to 1990 but *** by *** percent from 1990 to 1991.

---

[91] Includes imports from Timminco.

[92] Imports of ultra-pure magnesium from Timminco were *** metric tons in 1989, *** metric tons in 1990, and *** metric tons in 1991. Because HTS classifications do not distinguish imports by grade, imports of both ultra-pure and commodity-grade pure magnesium from all other sources (other than Timminco) have been included in imports of commodity-grade pure magnesium.

Commodity-grade Pure Magnesium

The quantity of imports of commodity-grade pure magnesium from all other sources decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.[93] The value of such imports decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991. The average unit value (dollars per pound) of imports from all other sources decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.

Alloy Magnesium

The quantity of imports of alloy magnesium from all other sources decreased *** percent from 1989 to 1990 and decreased *** percent from 1990 to 1991.[94] The value of such imports increased *** percent from 1989 to 1990 but decreased *** percent from 1990 to 1991. The average unit value (dollars per pound) of imports from all other sources increased *** percent from 1989 to 1990 and increased *** percent from 1990 to 1991.

U.S. Market Penetration By Imports

Market penetration ratios of imports of pure and alloy magnesium as a share of the quantity and value of U.S. consumption are presented in table 39. Market penetration ratios of imports of ultra-pure magnesium as a share of the quantity and value of U.S. consumption are presented in table 40. Market penetration ratios of imports of commodity-grade pure magnesium as a share of the quantity and value of U.S. consumption are presented in table 41. See Appendix C for market penetration ratios of imports of all pure magnesium as a share of the quantity and value of U.S. consumption of all pure magnesium. Market penetration ratios of imports of alloy magnesium as a share of the quantity and value of U.S. consumption are presented in table 42. See Appendix C for market penetration ratios of imports of all pure magnesium as a share of quantity and value of U.S. consumption of all pure and alloy magnesium, and of imports of alloy magnesium as a share of quantity and value of U.S. consumption of all pure and alloy magnesium.

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[93] Imports of commodity-grade pure magnesium from Timminco were *** metric tons in 1989, *** metric tons in 1990, and *** metric tons in 1991. Imports of commodity-grade pure magnesium from all other sources were *** metric tons in 1989, *** metric tons in 1990, and *** metric tons in 1991. Imports of commodity-grade pure magnesium may be slightly overstated because HTS classifications do not distinguish imports by grade. Imports of both ultra-pure and commodity-grade pure magnesium have been included in imports of commodity-grade pure magnesium.

[94] Imports of alloy magnesium from Timminco were *** metric tons in 1989, *** metric tons in 1990, and *** metric tons in 1991. Imports of alloy magnesium from all other sources were *** metric tons in 1989, *** metric tons in 1990, and *** metric tons in 1991.

Table 39
Pure and alloy magnesium: Apparent U.S. consumption, U.S. imports,[1] and ratios of imports to consumption, by sources, 1989-91

Item	1989	1990	1991
	Quantity (metric tons)		
Producers' U.S. shipments	97,526	88,184	79,193
U.S. imports from—			
Norsk Hydro Canada	***	***	***
All other sources	***	***	***
Total, all imports	8,599	17,977	23,304
Apparent U.S. consumption	106,125	106,161	102,497
	Value (1,000 dollars)		
Producers' U.S. shipments	320,858	277,530	210,145
U.S. imports from—			
Norsk Hydro Canada	***	***	***
All other sources	***	***	***
Total, all imports	31,181	58,892	64,246
Apparent U.S. consumption	352,039	336,422	274,391
	Share of quantity of U.S. consumption (percent)		
Producers' U.S. shipments	91.9	83.1	77.3
U.S. imports from—			
Norsk Hydro Canada	***	***	***
All other sources	***	***	***
Total, all imports	8.1	16.9	22.7
	Share of value of U.S. consumption (percent)		
Producers' U.S. shipments	91.1	82.5	76.6
U.S. imports from—			
Norsk Hydro Canada	***	***	***
All other sources	***	***	***
Total, all imports	8.9	17.5	23.4

[1] Data presented are U.S. shipments of imports from Norsk Hydro Canada and Norsk Hydro Norway and U.S. imports from Timminco and countries other than Canada and Norway.
[2] Less than 0.05 percent.

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 40
Ultra-pure magnesium: Apparent U.S. consumption, U.S. imports,[1] and ratios of imports to consumption, by sources, 1989-91

Item	*1989*	*1990*	*1991*
*	*	*	*	*	*	*

[1] Data presented are U.S. shipments of imports from Norsk Hydro Canada and Norsk Hydro Norway and U.S. imports from Timminco and countries other than Canada and Norway.

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 41
Commodity-grade pure magnesium: Apparent U.S. consumption, U.S. imports,[1] and ratios of imports to consumption, by sources, 1989-91

Item	*1989*	*1990*	*1991*
*	*	*	*	*	*	*

[1] Data presented are U.S. shipments of imports from Norsk Hydro Canada and Norsk Hydro Norway and U.S. imports from Timminco and countries other than Canada and Norway.

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 42
Alloy magnesium: Apparent U.S. consumption, U.S. imports,[1] and ratios of imports to consumption, by sources, 1989-91

Item	1989	1990	1991
*	*	*	*	*	*	*

[1] Data presented are U.S. shipments of imports from Norsk Hydro Canada and Norsk Hydro Norway and U.S. imports from Timminco and countries other than Canada and Norway.

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.

Subject Imports[95]

Pure and Alloy Magnesium

U.S. market penetration ratios of subject imports of pure and alloy magnesium, based on quantity, were *** percent in 1989, *** percent in 1990, and *** percent in 1991. Based on value, ratios of subject imports were *** percent in 1989, *** percent in 1990, and *** percent in 1991.

Ultra-pure Magnesium

There were no imports of ultra-pure magnesium from Canada (other than non-subject imports from Timminco) during 1989-91.

Commodity-grade Pure Magnesium

U.S. market penetration ratios of subject imports of commodity-grade pure magnesium, based on quantity, were *** percent in 1989, *** percent in 1990, and *** percent in 1991. Based on value, ratios of subject imports were *** percent in 1989, *** percent in 1990, and *** percent in 1991.

[95] Excludes imports from Timminco.

Alloy Magnesium

U.S. market penetration ratios of subject imports of alloy magnesium, based on quantity, were *** percent in 1990, and *** percent in 1991. Based on value, ratios of subject imports were *** percent in 1990, and *** percent in 1991. Norsk Hydro Canada did not ship alloy magnesium to the United States in 1989.

All Other Sources[96]

Pure and Alloy Magnesium

U.S. market penetration ratios of all other imports of pure and alloy magnesium, based on quantity, were *** percent in 1989, *** percent in 1990, and *** percent in 1991. Based on value, ratios of imports from all other sources were *** percent in 1989, *** percent in 1990, and *** percent in 1991.

Ultra-pure Magnesium

U.S. market penetration ratios of all other imports of ultra-pure magnesium, based on quantity, were *** percent in 1989, *** percent in 1990, and *** percent in 1991. Based on value, ratios of imports from all other sources were *** percent in 1989, *** percent in 1990, and *** percent in 1991.

Commodity-grade Pure Magnesium

U.S. market penetration ratios of all other imports of commodity-grade pure magnesium, based on quantity, were *** percent in 1989, *** percent in 1990, and *** percent in 1991. Based on value, ratios of imports from all other sources were *** percent in 1989, *** percent in 1990, and 0.9 percent in 1991.

Alloy Magnesium

U.S. market penetration ratios of all other imports of alloy magnesium, based on quantity, were *** percent in 1989, *** percent in 1990, and *** percent in 1991. Based on value, ratios of imports from all other sources were *** percent in 1989, *** percent in 1990, and *** percent in 1991.

[96] Includes imports from Timminco.

Prices

Market Characteristics

There are two distinct end-user markets for magnesium—one for pure magnesium and another for alloy magnesium. End users who purchase pure magnesium typically do not purchase alloy magnesium and those who buy alloy magnesium do not generally buy pure magnesium. Pure magnesium is sold to aluminum producers, magnesium granule producers for steel desulfurization, and chemical and pharmaceutical manufacturers; magnesium alloys are mainly sold to diecasters. Because of these different end-use markets, the demands for pure and alloy magnesium have followed slightly different trends. While the demand for pure magnesium declined steadily from 1989 to 1991, the demand for alloy magnesium fluctuated but was higher in 1991 than it was in 1989.[97] [98] The alloy magnesium market has been characterized as one of growth with expanding potential; industry sources report that magnesium diecast applications are expanding rapidly, particularly in the automotive and computer market segments.[99]

The different segments of the magnesium markets require slightly different levels of magnesium and impurities. For example, aluminum manufacturers usually only purchase pure magnesium (of at least 99.8 percent magnesium) because they are concerned about the level of certain impurities, such as iron.[100] Because of the specific product requirements, pricing tends to vary somewhat between the different customer groups. For example, *** reported that prices to aluminum manufacturers differ slightly from those to magnesium granule producers because of differences in ingot size and grade of metal supplied. *** stated that the prices of magnesium are based upon production cost differences that are a

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[97] In 1988 and 1989, there was a shortage of magnesium supply in the United States and prices of pure and alloy magnesium increased. *** reported that it was forced to restrict shipments and extend lead times when demand peaked in 1989. However, *** also stated that there were few, if any, missed shipments, during that time and no specific region of the United States was affected. Similarly, *** reported that it was recovering from feedstock problems in 1988 and it was forced to run at reduced levels; therefore, supply was tight in 1988 and 1989. *** also stated that it believed that no consumer was significantly impaired by a lack of supply during that time. *** reported that during June 1989, its largest customer, ***, was unable to receive sufficient quantities of magnesium under the contract between the two. *** went to *** to cover the *** that was needed for ***. *** stated that the shortage was probably more acute in the alloy (diecasting) segment as suppliers were favoring the pure market in the United States and European markets where prices tended to be higher.

[98] *** reported that the pure magnesium market is subject to wide demand swings due to cyclical conditions in the downstream consuming markets.

[99] In general, many industry experts agree that there is future growth potential in the magnesium alloy market but not in the pure magnesium market. Magcorp, however, stated that it believes that the aluminum and desulfurization uses of magnesium are also growing fast (Transcript of the hearing, p. 55).

[100] Titanium and beryllium producers must purchase ultra-pure magnesium in order to avoid certain impurities.

function of the magnesium quality. In the steel desulfurization market there is some deviation from the 99.8 percent level of magnesium. Both *** reported that magnesium granule producers can use magnesium with less than 99.8 percent magnesium. ***. ***.

Another factor that may affect prices of magnesium in the different markets is the availability of substitute products. There are no substitutes for magnesium in aluminum alloy production; however, there are some substitutes for magnesium in the other uses of the product. In the steel desulfurization market, calcium carbide can be used instead of magnesium; however, magnesium is preferred over other materials in this application because it is faster and more efficient.[101] There are some substitute products for alloy magnesium in the diecasting market, including aluminum, zinc, and even plastics in some applications; aluminum alloys tend to be the major substitutes for alloy magnesium. There are, however, tradeoffs that may tend to limit the degree of substitution between alloy magnesium and these other products. Alloy magnesium has advantages over other products because it is among the easiest of structural metals to machine due to its light weight, ease of castability, and its good strength-to-weight ratio.

Two of the three U.S. producers of pure magnesium, Dow and Magcorp, also produce and sell alloy magnesium.[102] Prices for alloy magnesium tend to be much more stable than those for commodity-grade pure magnesium and in recent months have been higher. Norsk Hydro stated that prices for alloy magnesium need to be much more stable than those for pure magnesium or else some end users, such as, automakers will not consider alloy magnesium in their product designs. Magcorp stated that in the past, there may have been some relationship between prices of pure and alloy magnesium;[103] however, during 1989-91, prices for these two products did not exhibit a specific relationship.[104]

U.S. producers and importers of magnesium generally agreed that pure and alloy magnesium are not substitutable for one another in end use applications.[105] While pure magnesium is used as a chemical or alloying agent, alloys are used as a structural metal.

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[101] *** reported that the use of magnesium powder grew at the expense of calcium carbide in the 1980s. However, once the decision is made to use magnesium powder, sunk capital costs may limit any future substitutability. In addition, there may be environmental concerns that affect the decision to substitute calcium carbide for magnesium.

[102] In the majority of cases, the end uses for pure and alloy magnesium are separate; in a small number of applications within the steel desulfurization and aluminum extrusions industries, pure and alloy magnesium may be substitutable.

[103] Magcorp stated that prices of alloy had historically been approximately *** percent lower than those for pure magnesium because of the fact that the alloys generally contained about 90 percent magnesium (staff interview, Sept. 19, 1991, and transcript of the hearing, p. 25).

[104] Counsel for Norsk Hydro states that the prices of alloy magnesium follow those of aluminum 380, its principal competitor (Transcript of the conference, p. 74).

[105] Magcorp, however, stated at the hearing that it believes that there is substitutability between pure and alloy magnesium (Transcript of the hearing, p. 22).

Pure magnesium is unacceptable as a structural metal because it does not have the mechanical properties or corrosion resistance of alloy magnesium. Similarly, there appears to be agreement on the issue of substitutability between commodity-grade pure magnesium and ultra-pure magnesium. Ultra-pure product contains fewer impurities and is often tailored to a customer's specific requirements. Thus, although ultra-pure magnesium can be used in place of commodity grade, the reverse is not true. However, the price premium commanded by ultra-pure magnesium makes its use in commodity-grade applications economically unfeasible.

Pure magnesium is available in both ingot and granular forms, with the granular form being priced higher than the ingots due to the additional cost of grinding the product. The most common use for granular magnesium is in the steel desulfurization market; however, in the other magnesium markets, such as aluminum alloying, granular magnesium cannot easily replace magnesium ingots. Although it may be possible to use granular magnesium in industries other than desulfurization, most suppliers reported that doing so would result in a loss of efficiency and potential safety problems.

All three U.S. producers reported that differences in quality between domestic and imported magnesium are not a significant factor in their sales of magnesium. Canadian producers, on the other hand, tended to disagree. Although Norsk Hydro reported that the actual chemical composition of its magnesium is similar to that of the U.S.-produced product,[106] it believes that its product has other superior qualities. Norsk Hydro stated that its DC cast pure magnesium T-bars are generally considered superior to mold-cast products due to their lower melt/loss ratio, reduced physical imperfections, ease of handling, and reduced risk of explosion in the molten metal environment.[107] [108] Timminco, another Canadian producer, also believes that its product is superior because it has a higher amount of magnesium and lower levels of impurities.[109]

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[106] Magnesium suppliers are required to meet ASTM specifications, therefore the chemistry of the imported and domestic primary magnesium is virtually the same. The ASTM specifications for pure magnesium are different from those for alloy magnesium. While there is no specification for a maximum amount of iron in pure magnesium, there cannot be more than 0.004 percent iron in alloy magnesium. Moreover, while there can be sodium in alloy magnesium, there cannot be more than 0.006 percent sodium in pure magnesium.

[107] *** stated that the DC cast T-bar eliminates the shrink cavity that is common in magnesium ingots, thereby reducing the ability of the product to contain moisture. In addition, the DC cast T-bar also allegedly allows for a more precise weight control.

[108] Norsk Hydro stated that no firm in the United States is currently producing this DC cast T-bar product (Transcript of the conference, pp. 66 and 91).

[109] Timminco stated that although Magcorp does produce a high-grade magnesium, it believes that the quality of its product is considered superior. Timminco also reported that its high-grade product is sold at a premium over commodity-grade magnesium and prices for this product have not declined as prices for "commodity" grade magnesium have (Transcript of the conference, pp. 110 and 139). For a discussion on purchaser perceptions of quality, see the section of this report entitled "Purchaser Responses."

In the magnesium alloy market, scrap repurchase programs have emerged as important factors. Prior to the existence to these programs, diecasters sold their scrap either to a junk dealer or a major user for desulfurization. However, in late 1991, magnesium suppliers began purchasing diecaster-generated scrap and giving either cash or a credit on future sales of magnesium alloy.[110] While Dow and Magcorp utilize third-party scrap dealers, Norsk Hydro recycles the scrap at its new facility in Canada.[111] ***. These programs have become very popular with diecasters because they are getting a better return on their scrap then they previously were.

Magnesium is sold on both a spot and contract basis. Magcorp reported that *** of its sales to diecasters and *** of its sales to aluminum manufacturers were made on a spot basis during 1991; however, *** percent of its sales to magnesium granule producers were made on a contract basis. Overall, *** percent of Magcorp's total sales were on a spot basis and *** percent on a contract basis. Dow and Northwest Alloys reported using contracts ***; overall, Dow and Northwest Alloys reported that ***, respectively, of their total sales in 1991 were made on a contract basis. Dow reported that *** of its sales of pure magnesium to aluminum and magnesium granule producers are made on a contract basis; however, in 1991, *** of its sales to diecasters were on a spot basis. Northwest Alloys reported that *** percent of its sales to aluminum makers and *** sales to steel desulfurizers and to chemical manufacturers were made on a contract basis. ***.

In general, trends in prices for spot sales are similar to those for contract sales, although most suppliers, both domestic and Canadian, did not report any specific relationship between the two.[112] However, *** stated that spot prices have a strong impact on contract prices because they tend to set the tone for the next negotiating period.[113]

Contracts in this industry vary in length from less than a year to five years, with the typical contract being about one year in length. These agreements, which can be written or verbal, usually contain volume requirements but do not generally fix price for the duration of the contract.[114] Prices are usually negotiated at the onset of the agreement and take into

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[110] Magcorp stated that its scrap repurchase program was implemented in response to Norsk Hydro's program (Transcript of the hearing, p. 88).

[111] Magcorp contends that Norsk Hydro has offered higher than market values for the scrap that it purchases, thus actually giving the diecaster a lower realized price on the magnesium alloy that it purchases from Norsk Hydro (Transcript of the hearing, p. 48). ***.

[112] Changes in spot prices appear to occur before changes in contract prices. U.S. magnesium producers sold more product on a spot basis than Canadian firms, particularly in the diecasting market.

[113] In addition, spot prices may influence some contract prices because many agreements have clauses that allow for price readjustment during the term of the contract.

[114] Contracts or agreements in this industry tend to be verbal and not written; however, one purchaser at the conference reported that once an agreement is made, the firm is committed to buy from a supplier (Transcript of the conference, pp. 136-7).

account the overall competitive pricing levels of magnesium in the U.S. market.[115] Most agreements allow for price changes as the market changes during the length of the contract, and most agreements contain meet-or-release clauses. *** reported that it has become necessary to include language in its contracts specifically stating that it would like to "have the opportunity to meet any competitive offers." *** also reported that when a specific contract is lost, it usually tries to be more aggressive in bidding the next contract or in rebidding to maintain sales and production volume.[116] ***, on the other hand, stated that before it would lower the price of the magnesium it would attempt to offer a better value package by offering additional technical support, packaging, delivery, etc.

The process of making price quotes in the magnesium market is generally done in response to verbal requests and negotiations; therefore, formal bidding rarely occurs. All three U.S. producers reported that there is often more than one chance to bid for a purchaser's business. These suppliers and Norsk Hydro all stated that prices offered by competitors are frequently discussed. Although purchasers do not usually identify suppliers, the firms are usually aware of their competitors because of the small number of companies in the industry.

Producers and importers agree that there is a significant amount of price competition in the magnesium market; however, they disagree as to which firm has been the leader in price movements during 1989-91. Magcorp contends that Norsk Hydro has caused prices to decline throughout the period for which data were reported.[117] Conversely, Norsk Hydro asserts that U.S. producers, in particular Magcorp and Northwest Alloys, have initiated price cuts in the marketplace.[118]

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[115] All three U.S. producers reported that prices vary for different customer groups depending on the specific needs of the customer and the demand levels in each segment.

[116] In the magnesium industry, it is desirable to keep production at or near capacity in order to minimize costs; therefore, companies will sometimes lower prices to maintain a certain production level.

[117] Transcript of the hearing, pp. 82-83.

[118] At the hearing, two purchasers, Reynolds and Alcan Aluminum, testified that Magcorp and Northwest Alloys initiated price decreases in the magnesium market (Transcript of the hearing, pp. 122-123). However, purchaser questionnaire responses indicate that most purchasers believe that Dow is the price leader in the market (see sections of this report entitled "Purchasers of Commodity-Grade Pure Magnesium" and "Purchasers of Alloy Magnesium").

* * * * * * *

Suppliers of magnesium have list prices for pure and alloy magnesium; however, these prices are rarely, if ever, adhered to.[119] According to Magcorp, prior to 1984, list prices were generally close to spot and contract transaction prices in the United States in most customer markets. However, in 1984, transaction prices departed from list prices and were generally below list prices. Since that time, transaction prices for pure magnesium have been below list prices and have also varied by end-use industry.[120] Published price series for magnesium are found in *American Metals Market*; however, these prices are based upon list prices and, thus, do not reflect current market transaction prices.[121]

Prices for both pure and alloy magnesium are quoted on a per-pound basis. Suppliers reported that magnesium prices are generally quoted on a delivered basis with the supplier arranging and paying for the freight costs. Transportation costs account for approximately 1 to 4 percent of the delivered price and are not an important factor in a customer's sourcing decision for magnesium. As a result, suppliers can and do ship magnesium throughout the continental United States. All three U.S. producers reported that *** percent or more of their total shipments are made to customers located 500 or more miles from the plant. Lead times for delivery for sales of magnesium are relatively short. Magcorp reported that ***. Dow and Northwest Alloys reported ***.

Price Trends

The Commission requested price and quantity data from U.S. producers, importers, and foreign producers for their contract sales of magnesium during the period January 1989-December 1991.[122] [123] U.S. and Canadian producers were requested to submit separate pricing data for their sales to aluminum producers, magnesium granule producers, and diecasters.[124] Product specifications for which pricing data were requested are as follows:

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[119] Norsk Hydro reported that it does not have list prices for magnesium. Norsk also reported that it believes that ***.

[120] Postconference brief of Magcorp, p. A-12.

[121] Recently, Metals Week began publishing a producer transaction price for primary magnesium ingot.

[122] Only data for contract sales were collected in these final investigations because most sales are made on a contract basis.

[123] Sales prices reported by Norsk Hydro Canada are used for trend and comparison analysis. It sells directly to end users and pays the duty and freight costs. Therefore, prices from Norsk Hydro Canada are directly comparable to those reported by U.S. producers for sales to end users.

[124] Aluminum and magnesium granule producers both purchase commodity-grade pure magnesium (product 1). Magnesium granule producers purchase the magnesium and process it into granules and then sell it to steel manufacturers for desulfurization purposes.

Product 1: *Pure magnesium ingots containing at least 99.8 percent magnesium but less than 99.95 percent magnesium*[125]

Product 2: *Pure magnesium ingots containing at least 99.95 percent magnesium*[126]

Product 3: *Magnesium diecasting alloy ingots containing no more than 9 percent aluminum and 1 percent zinc*[127]

These products account for the bulk of primary magnesium sold in the U.S. market. According to Magcorp, they probably account for at least 90 percent of the total magnesium market. Usable pricing data were received from three U.S. producers and two Canadian producers. However, since imports from Timminco were found to be fairly traded by Commerce, import pricing data for Canada consist of data for only Norsk Hydro Canada, the only other producer in Canada that exported to the United States during the period January 1989-December 1991.[128] The domestic products for which pricing data were reported accounted for approximately 66 percent of U.S. producers' domestic shipments of commodity-grade pure magnesium and 16 percent of alloy magnesium during 1991.[129] The imported products accounted for approximately *** percent of U.S. imports of pure magnesium from Norsk Hydro Canada and *** percent of alloy magnesium imports from Norsk Hydro Canada during 1991.

Contract Sales of Pure and Alloy Magnesium

Sales to Aluminum Manufacturers—Weighted-average prices for contract sales of U.S.-produced commodity-grade pure magnesium sold to aluminum manufacturers were stable from the first quarter of 1989 to the third quarter of the same year, but then declined throughout the remainder of the period (table 43). Overall, U.S. producers' prices were *** percent lower at the end of 1991 than at the beginning of 1989.[130]

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[125] This is referred to as commodity-grade pure magnesium.

[126] This is referred to as ultra-pure magnesium.

[127] This alloy is commonly referred to as AZ91D and is used in diecasting applications. Magcorp estimated that AZ91D accounts for about *** percent of the total diecasting alloy market.

[128] ***. No U.S. producer reported prices for ultra-pure magnesium during the period 1989-91.

[129] This coverage for U.S. producers sales of alloy magnesium is low because ***. In 1989 and 1990, reported prices accounted for *** and *** percent of U.S. producers' shipments of alloy magnesium.

[130] During 1992, Dow announced price increases for pure magnesium twice. Dow announced a 10-percent worldwide increase for all grades of primary and secondary magnesium for all spot customers, and as contracts permit; this increase was effective Jan. 20, 1992. Alloy magnesium, cast anodes, and fabricated products were excluded. Dow also announced a $0.10 per pound increase (not to exceed list price) for all spot sales (and as contracts permit) in the North American market; this increase was effective June 15, 1992. Alloy magnesium and cast anodes were excluded.

(continued...)

Table 43
Commodity-grade pure magnesium: Weighted-average delivered contract sale prices and total quantity of U.S.-produced magnesium and magnesium imported from Canada[1] sold to aluminum manufacturers, by quarters, January 1989-December 1991

Period	United States		Canada	
	Price	Total quantity	Price	Total quantity
	(per pound)	(metric tons)	(per pound)	(metric tons)
* *	*	*	*	*

[1] Because imports from Timminco were found to be fairly traded by Commerce in its final determination, import data for Canada consist of data for Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected.

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

Contract prices for Canadian commodity-grade pure magnesium sold to aluminum manufacturers *** by *** percent from January-March 1990 to October-December 1990 and were *** through July-September 1991. These prices then *** by *** percent in the fourth quarter of 1991. Overall, Canadian contract prices to aluminum producers were *** percent *** in October-December 1991 than in January-March 1990.

Sales to Magnesium Granule Producers[131]—Weighted-average contract prices for domestic commodity-grade pure magnesium sold to magnesium granule producers generally declined from January-March 1989 to July-September 1990, falling approximately *** percent during that time (table 44). After increasing *** percent from the third quarter of 1990 to the fourth quarter of that year, these prices then fell *** percent through the end of 1991. Overall, these contract prices were *** percent lower in October-December 1991 than they were in January-March 1989. Contract prices for Canadian commodity-grade pure magnesium sold to magnesium granule producers *** by *** percent from October-December 1989 to July-September 1990. These prices *** for one

[130] (...continued)

According to information provided to the Commission by Dow concerning the Jan. 20, 1992, and the June 15, 1992 price increases (as well as an April 1, 1992 price increase on most alloy magnesium), the price increases *** with the imposition of any antidumping or countervailing duties on imports from Canada. Dow stated that (regarding the June 15, 1992 increase, with similar statements regarding the other increases) ***. ***. ***.

[131] As stated earlier, ***. ***. ***.

Table 44
Commodity-grade pure magnesium: Weighted-average delivered contract sale prices and total quantity of U.S.-produced magnesium and magnesium imported from Canada[1] sold to magnesium granule producers, by quarters, January 1989-December 1991

Period	United States		Canada	
	Price	Total quantity	Price	Total quantity
	(per pound)	(metric tons)	(per pound)	(metric tons)
* *	*	*	*	*

[1] Because imports from Timminco were found to be fairly traded by Commerce in its final determination, import data for Canada consist of data for Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected.

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

quarter and then *** by *** percent from October-December 1990 to October-December 1991. Overall, these prices were *** percent *** in the last quarter of 1991 than in the corresponding quarter of 1989.

Sales to Diecasters—Contract prices for domestic alloy magnesium sold to diecasters *** per pound throughout 1989, fell *** percent in January-March 1990, and *** through July-September 1990 (table 45).[132] These prices then decreased *** by April-June 1991 and were constant at that level throughout the remainder of 1991. Contract prices for this magnesium alloy were *** percent lower at the end of 1991 than they were at the beginning of 1989.[133]

Contract prices for Canadian alloy magnesium sold to diecasters *** from January-March 1990 to July-September 1990 before ***. These prices then *** by *** in the first quarter of 1991 and *** throughout the rest of 1991. Overall, these prices were *** at the end of 1991 than they were at the beginning of 1990.

[132] Prices were reported for the magnesium alloy that contains between 8.5 and 9.5 percent aluminum and 1 percent zinc; this alloy is traditionally referred to as AZ91D and is the most common magnesium diecasting alloy, representing about *** of total diecasting alloys sales.

[133] Dow announced a $0.06 per pound increase on its sales of alloy magnesium to spot customers (and as contract terms permit) in the North American market. This increase took effect on April 1, 1992 and covered all of Dow's magnesium alloys except a developmental alloy (AE42X1) and its gravity-cast alloy.

Table 45
Alloy magnesium: Weighted-average delivered contract sale prices and total quantity of U.S.-produced magnesium and magnesium imported from Canada[1] sold to diecasters, by quarters, January 1989-December 1991

Period	United States		Canada	
	Price	Total quantity	Price	Total quantity
	(per pound)	(metric tons)	(per pound)	(metric tons)
* *	*	*	*	*

[1] Because imports from Timminco were found to be fairly traded by Commerce in its final determination, import data for Canada consist of data for Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected.

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

Price Comparisons

Table 46 shows margins of underselling and overselling for pure and alloy magnesium in the aluminum manufacturers, magnesium granule producers, and diecasters markets. For sales of commodity-grade pure magnesium to aluminum producers, the Canadian product was priced *** percent below the domestic product in 2 of the 8 quarters where price comparisons were possible. In 5 quarters, the Canadian product was priced between *** and *** percent higher than the comparable domestic product. In the remaining quarter, the Canadian and U.S. products were priced the same.

In the magnesium granule market, commodity-grade pure magnesium from Canada was priced below the comparable domestic product in 2 of the 9 quarters where comparisons were possible; margins were *** and *** percent. In the remaining 7 quarters, the Canadian product was priced higher than the domestic by between *** and *** percent.

Alloy magnesium from Canada was priced *** percent below the comparable U.S.-produced product in 1 of the 8 quarters where comparisons were possible. In 3 quarters, the Canadian product was priced *** percent above the domestic product and the two were priced the same in the remaining 4 quarters.[134]

[134] In one of these four quarters, the U.S. product was priced slightly lower (i.e., *** percent) than the Canadian product.

Table 46
Pure and alloy magnesium: Margins of under/(over) selling for contract sales of pure and alloy magnesium in the aluminum production, magnesium granule production, and diecasting markets, by quarters, January 1989-December 1991

Period	Sales of commodity-grade pure magnesium to aluminum producers	Sales of commodity-grade pure magnesium to magnesium granule producers	Sales of alloy magnesium to diecasters
	(percent)	(percent)	(percent)
* *	* *	* *	* *

Note.—Percentage margins are calculated from unrounded figures; thus, margins cannot always be directly calculated from the rounded prices in the tables.

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

Purchaser Responses

The Commission sent questionnaires to approximately 60 firms believed to be purchasers of pure and alloy magnesium. Thirty-five responses were received; these firms' purchases represented approximately 79 percent of domestic shipments and virtually all of Canadian shipments of commodity-grade pure magnesium sold in the United States in 1991. In the alloy magnesium market, purchases by these 35 firms represented 57 percent of shipments of the domestic product and 67 percent of the Canadian product.[135] Purchasers generally bought either pure or alloy magnesium but not both;[136] purchasers' responses are discussed based on the type of magnesium that they purchased. The following is a compilation of these purchasers' responses.

Purchasers of Commodity-grade Pure Magnesium

Sixteen firms who purchased commodity-grade pure magnesium during the period January 1989 to December 1991 responded to the Commission's questionnaire. These firms purchased the product for use in the production of aluminum, magnesium granules,

[135] One purchaser was unable to determine whether the product that he purchased was from Canada or Norway.

[136] Three firms reported buying both alloy and pure magnesium during the period January 1989-December 1991; in those instances where their answers differed depending on the type of product purchased, they provided separate information for each type of product.

magnesium ferrosilicon, and sulfonates.[137] These firms reported purchasing commodity-grade pure magnesium from Dow, Magcorp, Norsk Hydro, Northwest Alloys, and Timminco. The majority of these purchasers stated that they do not compete for sales to their customers with the suppliers from whom they buy magnesium.[138] Virtually all of these purchasers stated that they are aware of the country of origin and the manufacturer of the product that they are purchasing. In addition, most purchasers reported that their customers are aware of or are concerned with the country of origin of the pure magnesium that they are being supplied.

In general, these firms reported that they purchase magnesium irregularly and that the purchasing pattern has not changed in the past three years. Although some companies reported reviewing suppliers and their prices once or twice a year, about half of the reporting purchasers stated that they do not frequently change suppliers. Reasons given for changing suppliers include assurance of stable supply,[139] competitive pricing, better product forms,[140] and improved logistics. In general, these purchasers reported contacting between two and four suppliers before making a purchase. Several of these purchasers named Norsk Hydro as a new entrant into the magnesium market in the past three years; MagCan was also named by three firms as a new supplier. Purchasers became aware of these suppliers via published trade media and sales visits from the suppliers.

Purchasers were asked to compare Canadian suppliers' marketing efforts with those of the domestic magnesium suppliers. Areas of comparison include terms of sale, service, warranties, and sales techniques. Virtually all of the responding purchasers reported that there were no differences between the Canadian and domestic magnesium product. The only comment made was by one purchaser who stated that the lead time for the Canadian product was longer than that of the domestic product.

Purchasers were asked to list the three major factors generally considered by their firm in deciding from whom to purchase commodity-grade pure magnesium. Price was listed most frequently as the most important factor, with five firms ranking it first, two firms ranking it second, and four ranking it third. Quality was also frequently mentioned as an important consideration; it was ranked first by four firms, second by four companies, and

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[137] Nine of the firms were aluminum producers, two were magnesium granule producers, two were magnesium ferrosilicon producers, two were distributors, and one manufactured sulfonates.

[138] A few purchasers reported that they do compete for sales with one supplier, Northwest Alloys.

[139] The assurance of secure supply appears to be an important consideration. Some purchasers reported that the supply of magnesium was tight during 1989 and they were placed on allocation and delivery times were lengthened. In addition, several purchasers commented that they are concerned about the future availability of magnesium, particularly if magnesium from Norsk Hydro is not available.

[140] Two firms reported purchasing from Norsk Hydro because of its ability to supply commodity-grade pure magnesium in T-bar form.

third by three firms. Other factors listed as the most important consideration included availability, reliability, traditional source of supply, delivery, sales terms, service, and contractual agreements.[141]

Purchasers were also asked to compare domestic and imported commodity-grade pure magnesium with respect to nine different factors.[142] [143] With respect to comparisons between the domestic and Canadian product, all responding firms[144] rated the Canadian and U.S. product as being identical in the areas of availability, packaging, and reliability of supply. With respect to the other factors, most of the responding firms found the Canadian and domestic product to be identical.[145]

Purchasers reported that prices for commodity-grade pure magnesium usually change either every quarter or every year. These firms were also asked to identify any firms they believed to be price leaders. Dow was named most frequently as the price leader in the market, with four firms identifying it as a leader. In addition, five other firms stated that Dow tended to lead the price up and Magcorp led it down.[146] Only two firms mentioned Norsk Hydro as a price leader and then only as a co-leader with Dow and Magcorp. While some purchasers reported that they do not generally discuss with potential suppliers the bids of competing firms in order to get the suppliers to lower their prices, others reported that they did. Seven purchasers stated that their contracts contain meet-or-release clauses that allow for a reduction in prices. These firms reported that while they will reveal the price offered, they will not usually identify the supplier involved. Ten firms, however, reported that they do not generally discuss the bids of competing firms in order to get a supplier to lower its price.[147]

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[141] Four firms mentioned size and/or shape of the ingot as an important consideration, with two firms specifically mentioning Norsk Hydro's T-bar product.

[142] These factors are availability, delivery time, delivery terms, packaging, price, product shape or size, product quality, reliability of supply, and technical support.

[143] Purchasers were also asked if there was a significant difference between the products that they bought from the various domestic and Canadian suppliers of pure magnesium. Virtually all of the purchasers responded no to this question. Purchasers also reported that pure magnesium from both sources is employed in the same range of uses.

[144] Fifteen of the 16 firms responded to this question.

[145] The only differences were with respect to delivery time, product shape or size, quality, and technical support. Three firms stated that delivery time of the domestic firms was superior to that of the Canadian firms while three firms reported that the Canadian product was superior in product shape and/or size. Finally, two firms stated that the quality of the Canadian product was superior and two others reported that the technical support of the domestic industry was superior.

[146] Two of these five firms reported that both Magcorp and Northwest Alloys tended to lead the price down.

[147] One purchaser noted that it is not necessary to discuss bids of competing firms because all suppliers usually offer the same price.

The majority of purchasers stated that prices are usually quoted on a delivered basis. Transportation costs reportedly account for between 1 and 3 percent of the total delivered cost of the magnesium; however, about half of the firms stated that delivery costs were considered when choosing a supplier. Most of the respondents stated that both U.S. producers and importers equalize freight from the nearest plant, warehouse, or terminal.

All but one purchaser agreed that pure and alloy magnesium are not substitutable for one another. About half the firms reported that there is some degree of substitutability between ultra-pure and commodity-grade pure magnesium. However, as the magnesium suppliers noted, commodity-grade cannot be used in the applications in which ultra-pure is required. In addition, the higher price of ultra-pure makes using it in commodity-grade applications economically unsound. Most purchasers reported that there are no other products that may be substituted for pure magnesium. The only possibility is scrap; however, this can only be substituted in some applications and care must be taken to control the chemical elements to prevent contamination. The use of scrap may also not be economically practical because it can increase furnace processing costs.

Most purchasers of commodity-grade magnesium agreed that T-bars are substitutable for common specification ingots. There were several purchasers that stated that T-bars were not substitutable because they provided benefits that the common shaped ingots did not; these factors included ease of handling and better quality. Virtually all purchasers commented that there was no substitutability between common specification ingots and granular magnesium; a few stated that granular may be used in a very limited number of applications.[148]

Purchasers of Alloy Magnesium

Ten firms that purchased alloy magnesium during the period January 1989-December 1991 provided useful information on their purchases during this period. These firms reported purchasing product from Dow, Magcorp, and Norsk Hydro for use in magnesium diecasting.[149]

These diecasters reported that they do not compete with the magnesium suppliers from whom they purchase. Purchases are made as frequently as weekly and as infrequently as once a year; however, most diecasters reported buying about once a month. Four firms reported that they have increased overall purchases in the last three years. Most of these firms stated that they did not change suppliers frequently. Two firms reported that they switched their purchases to Norsk Hydro because of its scrap repurchase program, better

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[148] One purchaser reported that granular magnesium may be useful for minor alloy corrections.

[149] The end-use applications of the magnesium alloy include power tools, engine components, computer disc drive components, laser disk components, other computer parts, and other automotive parts.

technology, and better quality. One firm reported that it started purchasing from Dow because of the possibility of increased duties.

Although a couple of firms reported that Canadian suppliers' marketing efforts were similar to those of the domestic firms, there appear to be more differences in the alloy market than in the pure market. Diecasters reported that the Canadian suppliers provided more and better technical support than the domestics. The Canadians were said to respond faster to questions and had a more thorough laboratory investigation. Canadian suppliers are also considered superior in scrap repurchase programs and in market development efforts.[150]

Several firms reported that the suppliers from whom they purchase alloy magnesium have scrap repurchase programs. Although the specific details of a scrap repurchase agreement can vary from one customer to another, in general they all involve the repurchasing of scrap magnesium and giving a credit for the diecaster. Two firms reported that they ship all of their scrap to a third-party scrap dealer (or secondary processor) that purchases all forms of magnesium scrap. The secondary processor determines the value of the scrap based on the recovery of magnesium and established settlement charges. The magnesium producer then satisfies the secondary processor's financial obligation to the diecaster by crediting the diecaster account with the magnesium supplier. In some cases, the magnesium supplier may require the diecaster to purchase alloy magnesium before it will accept the scrap. Currently all three domestic firms have scrap repurchase programs.

Quality was mentioned most frequently as the number one consideration in choosing a supplier of alloy magnesium, with six firms ranking it first. Price appears to be less important to diecasters than it is to purchasers of commodity-grade pure magnesium. Only one diecaster ranked it as the number one consideration; no firms ranked it second and six rated it as the third most important factor. Other factors that were mentioned include availability, credit terms, quality, service, scrap programs, and technology. Service and technology were both mentioned more frequently than price as the most important or second most important factor. Two firms ranked technology first and three firms ranked service as the second most important factor.

Diecasters were also asked to compare the imported product with the domestic product with respect to nine factors.[151] Although in most cases most diecasters found the

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[150] Two firms mentioned the scrap repurchase program of Norsk Hydro as an advantage; domestic producers have recently begun to offer these programs.

[151] These factors are availability, delivery time, delivery terms, packaging, price, product shape or size, product quality, reliability of supply, and technical support. Several purchasers reported that only Dow and Norsk Hydro provide technical support and product development efforts. These efforts are said to have helped expand the use of magnesium alloy diecast products. Diecasters were also asked if there was a significant difference between the alloy magnesium that they bought from the various domestic and Canadian suppliers. Virtually all

(continued...)

domestic and Canadian product identical, there were more alloy magnesium purchasers that found differences than the pure magnesium purchasers did. The great majority of the responding firms found the two identical with respect to availability, delivery time, packaging, product shape or size, product quality, and reliability of supply.[152] While seven purchasers found the prices of the two to be identical, three found that the domestic product was higher-priced than the Canadian. Technical support appears to be the one area where the most purchasers believe that there is a difference between the domestic and Canadian industries; four firms reported that the two were equal but five firms found the Canadians to be superior in that area.

Numerous diecasters reported that the supply of alloy magnesium was limited during late 1988 and 1989. Two firms reported being placed on allocation by domestic producers and one reported that prior to the entrance of Norsk Hydro into the market, it was required to commit to six months projected usage. Diecasters are particularly concerned about future magnesium supply because they fear that it will adversely affect potential future product development.[153]

Diecasters reported that prices in the magnesium alloy market changed less frequently than in the pure magnesium market, with all but one firm reporting that they changed yearly. Prices for alloy magnesium are generally quoted on a delivered basis. Most diecasters reported that both U.S. producers and importers equalize freight from the plant, warehouse, or terminal. As the purchasers of commodity-grade pure magnesium reported, there was some agreement that Dow was the price leader in the market.[154] Most diecasters reported that they generally do not discuss the names of competing suppliers with a given supplier but they do discuss the price offered as it relates to the other prices offered.

All diecasters agreed that pure and alloy magnesium are not substitutable for one another. Because the chemical analysis of alloy magnesium differs from that of pure, only alloy is suitable for casting purposes. There are, however, other products, such as aluminum, zinc, and plastics, that can be substituted for alloy magnesium. One purchaser reported that although these products can be substituted, there may be disadvantages with respect to price, weight, performance, and added operations to the finished products. Diecasters also agreed that T-bars are not substitutable for common specification ingots in

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[151] (...continued)
of the purchasers responded no to this question. Purchasers also reported that alloy magnesium from all three sources is employed in the same range of uses.

[152] All 10 firms responded to these questions.

[153] One purchaser reported that it is concerned that the removal of imports in the market will cause the price of magnesium to increase, which will cause products to be manufactured with aluminum or plastic instead of magnesium.

[154] Of the eight firms that responded to the question, four stated that Dow was the leader, two stated that Magcorp was the downward price leader, and two others reported that prices of all suppliers moved about the same.

diecasting because most diecasters require ingots that are less than 18 pounds and T-bars tend to be larger. In addition, these firms also agreed that granular magnesium cannot be used in place of ingots.

Purchasers of Ultra-pure Magnesium

Five firms that purchased ultra-pure magnesium during the period January 1989 to December 1991 responded to the Commission's questionnaire. These firms purchased the ultra-pure magnesium for use in the production of titanium, beryllium, uranium, and as a reactant with zinc chloride. These firms reported purchasing ultra-pure magnesium from Dow, Magcorp, MagCan, and Timminco.[155] These purchasers reported that they always know the country of origin and manufacturer of the ultra-pure magnesium that they are purchasing. All but one of the firms reported that their purchasing pattern had not changed in the past three years and all stated that they rarely switch suppliers.

In general, these purchasers are most concerned about the quality of the product; four of the five purchasers ranked quality as the number one factor in their purchasing decision.[156] The only other factor ranked number one was contractual agreement. Price was mentioned by two firms as the second most important factor and by two others as the third. Other factors that were listed as considerations in a purchasing decision include prearranged contracts, stability of supplier, technical support, and availability.

Purchasers of ultra-pure magnesium were also asked to compare the U.S. and imported products with respect to nine different factors.[157] At least four purchasers found the Canadian and domestic products identical with respect to availability, delivery time, packaging, and product shape or size. In the areas of delivery terms, product quality, and reliability of supply, three of the five firms found the domestic and Canadian to be identical. With regard to price, three firms reported that the Canadian product is higher-priced. Finally, there was no real consensus in the area of technical support; two firms found the two products to be identical, two found the Canadian superior, and one found the domestic to be superior.

In general, all of the purchasers that responded to the questions regarding substitutability between the various grades of magnesium agreed that there was no substitutability. Four firms reported that pure and alloy are not substitutable for one another while three reported that commodity-grade and ultra-pure cannot be substituted for each other.

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[155] Although these purchasers reported buying ultra-pure magnesium, Dow does not produce "ultra-pure" magnesium (as defined in this investigation).

* * * * * * *

[156] One purchaser, ***, mentioned that the quality of the magnesium is important because it directly affects the overall yields in its foundry reduction process.

[157] These factors are availability, delivery time, delivery terms, packaging, price, product shape or size, product quality, reliability of supply, and technical support.

Purchaser Price Data

The Commission requested price and quantity data from purchasers of pure and alloy magnesium for their contract purchases during the period January 1989-December 1991.[158] Product specifications for which pricing data were requested were the same as were requested from the producers and importers.[159]

Purchase Prices for Commodity-grade Pure Magnesium[160]—Weighted-average delivered purchase prices for domestic commodity-grade pure magnesium fluctuated with a downward trend during 1989 and 1990, falling *** percent during that time (table 47). These prices then declined steadily from the fourth quarter of 1990 to the same quarter of 1991, falling *** percent during that time. Overall, these purchase prices were *** percent lower in October-December 1991 than they were in January-March 1989.

Weighted-average purchase prices for the Canadian product *** from January-March 1989 to October-December 1990, *** during that time. From the fourth quarter of 1990, these prices then ***, reaching a level in October-December 1991 that was *** than in January-March 1989.

Purchase Prices for Alloy Magnesium[161]—Weighted-average purchase prices for domestic alloy magnesium *** in 1989 before falling *** percent in the first quarter of 1990 (table 48). These prices then fell *** percent from January-March 1990 to October-December 1991 to a level that was *** percent lower than the beginning of the period.

Weighted-average purchase prices for alloy magnesium from Canada *** during July-December 1989, *** by *** percent in January-March 1990, and *** in 1990. These prices then *** by *** percent in the first quarter of 1991 and *** in the remainder of 1991. Overall, prices for Canadian alloy magnesium were *** percent *** in the fourth quarter of 1991 than they were in the third quarter of 1989.

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[158] Price data for purchases of ultra-pure magnesium were received from 3 firms. Prices for the U.S. product *** irregularly from January-March 1989 to June 1991, *** percent during that time. Prices for Canadian ultra-pure reflect purchases from Timminco and therefore are considered fairly-traded imports. These prices also *** irregularly from January-March 1990 to October-December 1991, *** percent in that time. In general, the prices paid for Timminco's product were *** than those paid for the U.S. product.

These prices are not shown in a table due to the fact that Commerce determined that Timminco's product was fairly traded.

[159] Pricing data were requested for commodity-grade pure, ultra-pure, and alloy magnesium. For exact product descriptions, please see page I-75 of this report.

[160] Fourteen firms provided usable purchase price data.

[161] Six firms provided usable purchase price data.

Table 47
Commodity-grade pure magnesium: Weighted-average delivered contract purchase prices and total quantity of U.S.-produced magnesium and magnesium imported from Canada,[1] by quarters, January 1989-December 1991

Period	United States		Canada	
	Price	Total quantity	Price	Total quantity
	(per pound)	(metric tons)	(per pound)	(metric tons)
* *	*	*	*	* *

[1] Because imports from Timminco were found to be fairly traded by Commerce in its final determination, import data for Canada consist of data for Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected.

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

Table 48
Alloy magnesium: Weighted-average delivered contract purchase prices and total quantity of U.S.-produced magnesium and magnesium imported from Canada,[1] by quarters, January 1989-December 1991

Period	United States		Canada	
	Price	Total quantity	Price	Total quantity
	(per pound)	(metric tons)	(per pound)	(metric tons)
* *	*	*	*	* *

[1] Because imports from Timminco were found to be fairly traded by Commerce in its final determination, import data for Canada consist of data for Norsk Hydro Canada only. Norsk Hydro Canada was the only other producer in Canada exporting to the United States during the period for which data were collected.

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

Price Comparisons

In the commodity-grade pure magnesium market, the Canadian product undersold the domestic product in 6 of the 12 quarters where comparisons were possible; margins ranged from *** to *** percent (table 49). In the remaining 6 quarters, the Canadian product was between *** and *** percent higher-priced than the domestic.

In the alloy magnesium market, the Canadian product was priced between *** and *** percent below the comparable domestic product in 6 of the 10 quarters where comparisons were possible (table 49). In four of the quarters, the Canadian product was priced higher than the domestic product, with margins ranging from *** to *** percent.

Table 49
Pure and alloy magnesium: Margins of under/(over) selling for contract purchases of commodity-grade pure and alloy magnesium, by quarters, January 1989-December 1991

Period	Purchases of commodity-grade pure magnesium	Purchases of alloy magnesium
	(percent)	(percent)
* * * * * * *		

Note.—Percentage margins are calculated from unrounded figures; thus, margins cannot always be directly calculated from the rounded prices in the tables.

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

Exchange Rates

Quarterly data reported by the International Monetary Fund indicate that the Canadian dollar appreciated in relation to the U.S. dollar over the period from January-March 1989 through October-December 1991 (table 50).[162] The nominal value of the Canadian currency appreciated by 5.1 percent. When adjusted for movements in producer price indexes in the United States and Canada, the real value of the Canadian currency depreciated by 2.0 percent during the period for which data were collected.

[162] *International Financial Statistics*, September 1991.

Table 50
Exchange rates:[1] Indexes of nominal and real exchange rates of the Canadian dollar and indexes of producer prices[2] in the United States and Canada, by quarters, January 1989-December 1991

Period	U.S. producer price index	Canadian producer price index	Nominal exchange-rate index	Real exchange-rate index[3]
1989:				
January-March	100.0	100.0	100.0	100.0
April-June	101.8	100.3	99.9	98.4
July-September	101.4	99.9	100.8	99.3
October-December	101.8	99.3	102.0	99.5
1990:				
January-March	103.3	99.6	100.8	97.3
April-June	103.1	99.8	101.8	98.6
July-September	104.9	99.9	103.4	98.4
October-December	108.1	101.2	102.7	96.1
1991:				
January-March	105.9	100.8	103.1	98.2
April-June	104.8	99.3	103.7	98.2
July-September	104.7	98.5	104.2	98.1
October-December	104.8	97.8	105.1	98.0

[1] Exchange rates expressed in U.S. dollars per unit of foreign currency.
[2] Producer price indexes—intended to measure final product prices—are based on period-average quarterly indexes presented in line 63 of the *International Financial Statistics*.
[3] The real exchange rate is derived from the nominal rate adjusted for relative movements in producer prices in the United States and Canada.

Source: International Monetary Fund, *International Financial Statistics*, September 1991.

Lost Sales and Revenues from the Final Investigations

The Commission received lost sales and lost revenue allegations from all three U.S. producers in the final investigations. The 12 lost sales allegations totaled approximately *** and involved *** metric tons of pure and alloy magnesium allegedly purchased from Canadian sources. The 15 lost revenue allegations totaled *** and involved *** metric tons of pure and alloy magnesium. Staff contacted purchasers that accounted for *** of the *** allegations involved and a summary of the information obtained follows.

*** alleged that it lost revenues of *** on a sale of ***, due to competition from Canadian imports. *** could not comment on this specific instance because ***. *** did, however, state that it was quite probable that this occurred. *** stated that ***. According to

***, the cost of the magnesium accounts for approximately *** to *** percent of the total cost of its end product ***. Therefore, ***. *** reported that availability and reliability are important considerations in *** purchasing decisions; however, the most important factor is price. While price is overall the most important consideration, there are instances where other factors become important. For example, in 1991, *** reported that it purchased Canadian material even though domestic magnesium was available at a lower delivered price. *** reported that this was done because of the reliability of the Canadian product.

*** alleged that it lost a sale of *** pounds of alloy magnesium valued at *** due to competition from Canadian imports. *** stated that in *** it was negotiating with Dow, Magcorp, and Norsk Hydro; *** did purchase Canadian material at that time. *** reported that the Norsk Hydro offered to sell primary alloy magnesium for *** per pound and it would ***. In 1992, Norsk Hydro would ***. Norsk Hydro guaranteed ***. *** stated that the offer by Dow was the same except Dow could only offer ***. *** chose to purchase from ***. *** also explained that Magcorp offered ***. ***. *** reported that *** was not chosen because *** did not believe that ***. *** also wanted a long-term, stable contract but did not feel comfortable with *** because it had had delivery problems with *** in the past. Thus, the decision was between ***. *** was chosen because *** had requested a ***. *** also reported that both Dow and Norsk Hydro have strong technical support program, whereas Magcorp has none. Finally, *** stated that Dow is usually the price leader.

*** claimed that it lost revenues of *** on *** sales totaling *** pounds of pure magnesium allegedly due to competition from Canadian imports. *** stated that although the allegation sounded accurate, the Canadians were not the price leaders during 1989-91. *** stated that the three major suppliers, Dow, Magcorp, and Norsk Hydro, have all initiated price changes; when one supplier changes the others match it. *** added that *** primary contracts are with U.S. suppliers but it does purchases some magnesium from Canada because of a desire for multiple sources of supply and ***.[163] *** explained that ***.

*** alleged that it was unable to sell approximately *** metric tons of alloy magnesium to *** due to competition from lower-priced Canadian imports in ***. *** reported that *** did switch some purchases from *** because at the time *** did not have a scrap program and it would not guarantee the price of magnesium for a year as *** requested. ***. According to ***. ***. However, he also stated that *** would not source more than *** percent from *** because he is concerned with the viability of ***. *** also reported that Dow recently announced a $0.06 per pound price increase for the magnesium alloy AZ91D.

*** named *** in *** lost sale allegations totaling approximately *** and involving *** metric tons of *** magnesium. *** reported that it did switch purchases from U.S.-produced

[163] *** reported that a duty drawback is a refund on the duty paid on the magnesium imported into the United States. The refund is given if the product that uses the magnesium is sold outside the United States. The refund is given from the U.S. Government.

to Canadian product; however, this decision was made for quality reasons. *** stated that ***. ***. ***.

*** alleged that it lost approximately *** on sales of *** tons of alloy magnesium to ***. *** reported that he has not asked any suppliers to lower their prices and that it has often been a U.S. firm that has lowered prices first. *** also stated that *** has received the same price and credit terms from all three of its suppliers. *** stated that it is his policy to purchase from the supplier that has the best service. According to ***, Dow and Norsk Hydro have better service than Magcorp; however, ***. *** reported that he does so in order to ensure that ***; he feels that it is important to have three suppliers in the market. *** also stated that Dow has recently increased prices for magnesium alloy by $0.06 per pound. This price increase was effective as of April 1, 1992, for spot sales and May 1, 1992, for contract sales.

Lost Sales and Revenues from the Preliminary Investigations

The Commission received lost sales and lost revenue allegations from three U.S. producers in the preliminary investigation. The 18 lost sales allegations totaled approximately *** and involved about *** metric tons of magnesium allegedly purchased from Canadian sources. The 20 lost revenue allegations totaled *** and involved about *** metric tons of magnesium. The Commission contacted 4 purchasers and a summary of the information obtained follows.

*** alleged that it lost revenues on *** to ***, due to competition from Canadian imports in ***. These *** allegations totaled *** and involved *** metric tons of magnesium alloy. *** could not remember all the exact dates involved but did provide information on the firm's purchasing habits and prices in the magnesium market.[164] *** reported that *** purchases from ***. He also stated that he has gone to both *** at various times and asked them both to lower prices. According to ***, prices for magnesium alloy have generally declined during the period of investigation, with both U.S. and Canadian prices following similar trends. *** added that *** has paid more for magnesium alloy from *** because ***.

*** alleged that it lost revenues on *** separate occasions in *** to *** due to competition from Canadian imports. These *** allegations totaled *** and involved approximately *** metric tons of pure magnesium. *** could not confirm these specific allegations. *** stated that *** purchases magnesium from three suppliers, Dow, Magcorp, and Norsk Hydro. According to ***, no one firm has been the price leader during the period of investigation; at different times, each of its suppliers has been the lower-priced supplier. *** stated that Magcorp and Dow have had to lower prices under the terms of their contracts with ***. These contracts contain language that states that the supplier will meet any bona fide offer to sell magnesium.

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[164] *** reported that it is difficult to remember specifically which firm led the price down in each instance of alleged lost revenues because the price leader changes frequently.

*** named *** in *** lost revenue allegations and *** lost sales allegations during *** due to the competition from Canadian imports. The lost revenue allegations totaled *** and involved approximately *** metric tons of pure magnesium, and the lost sales allegations totaled about *** million and involved about *** metric tons. *** denied these allegations. With respect to the lost sales allegations, *** reported that *** purchased the pure magnesium from another domestic supplier, not a Canadian supplier. With respect to one of the lost revenue allegations, *** stated that both quotes were from U.S. producers and the market price was lowered to *** by the other U.S. producer. For *** stated that there was only one quote and that was from ***. *** added that *** purchases magnesium from three suppliers, Dow, Magcorp, and Norsk Hydro. According to ***, approximately *** percent of *** purchases in 1990 were of U.S.-produced magnesium. *** also reported that *** did switch some of its purchases of U.S.-produced magnesium to Norsk Hydro during the period of investigation. This was done to approve Norsk Hydro's Canadian plant as a qualified supplier and to consolidate purchases with high-volume, stable, state-of-the-art suppliers.

*** was named by *** in *** lost sales allegations totaling approximately *** and involving approximately *** metric tons of pure magnesium. *** provided specific information for *** of the allegations. *** reported that in all cases the lowest bidder was chosen. This was most often a U.S. supplier; however, in some cases Norsk Hydro was the lowest bidder. *** stated that Norsk Hydro offered the opportunity for a duty drawback which effectively reduced its actual price. In one instance *** reported that a U.S. supplier, Northwest Alloys, was the lowest bidder; *** bought magnesium from Northwest Alloys and Magcorp at this time. *** paid a higher price for the *** material because the material ***.[165]

***; the lowest bids were from Norsk Hydro *** and Northwest Alloys ***. *** price at that time was *** per pound. *** purchased about *** metric tons from Norsk Hydro, *** metric tons from Northwest Alloys, and *** metric tons from Magcorp.

*** reported that Magcorp and Northwest Alloys were the two lowest bidders during this time. *** purchased about *** metric tons of 99.8 percent pure magnesium and *** metric tons of ultra-pure magnesium (99.98 percent) from *** for *** per pound. In addition, *** bought *** metric tons of pure magnesium from Northwest Alloys for *** per pound.

[165] *** paid *** per pound for the Northwest Alloys material and *** per pound for the Magcorp magnesium.

Appendix A

The Commission's and Commerce's *Federal Register* Notices

[Investigation No. 701-TA-309 (Final)]

Magnesium From Canada; Notice of Institution

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of a final countervailing duty investigation.

SUMMARY: The Commission hereby gives notice of the institution of final countervailing duty investigation No. 701-TA-309 (Final) under section 705(b) of the Tariff Act of 1930 (19 U.S.C. 1671d(b)) (the act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Canada of primary magnesium,[1] that all alleged to be subsidized by the Government of Canada.

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

EFFECTIVE DATE: December 4, 1991.

FOR FURTHER INFORMATION CONTACT: Fred 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.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that certain benefits which constitute subsidies within the meaning of section 703 of the act (19 U.S.C. 1671b are being provided to manufacturers, producers, or exporters in Canada of pure and alloy magnesium. The investigation was requested in a petition filed on September 5, 1991, by Magnesium Corp. of America (MagCorp), Salt Lake City, UT.

Participation in the Investigations and Public Service List

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

Limited Disclosure of Business Proprietary Information (BPI) Under an Administrative Protective Order (APO) and BPI Service List

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

Staff Report

The prehearing staff report in this investigation will be placed in the nonpublic record on Friday, February 21, 1992, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules.

Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on Thursday, March 5, 1992, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before Friday, February 28, 1992. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on Monday, March 2, 1992, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 201.13(f), and 207.23(b) of the Commission's rules.

Written Submissions

Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.22 of the Commission's rules; the deadline for filing is Friday, February 28, 1992. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.24 of the Commission's rules. The deadline for filing posthearing briefs is Wednesday, March 11, 1992; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before Wednesday, March 11, 1992. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ 201.6, 207.3, and 207.7 of the Commission's rules.

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

Authority

This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules.

Issued: December 18, 1991.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 91-30800 Filed 12-24-91; 8:45 am]

BILLING CODE 7020-02-M

[1] The product covered by this investigation is primary magnesium, which consists of unwrought pure magnesium and magnesium alloys. Pure unwrought magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Magnesium alloys contain less than 99.8 percent magnesium by weight, with magnesium being the largest metallic element in the alloy by weight. Pure and alloy magnesium are provided for in subheadings 8104.1100.00 and 8104.1900.00, respectively, of the Harmonized Tariff Schedule of the United States (HTS). Excluded from the scope of investigation are secondary magnesium and magnesium alloys which contain 70 percent or less of magnesium by weight.

[C-122-815]

Alignment of the Final Countervailing Duty Determination With the Final Antidumping Duty Determination: Pure and Alloy Magnesium From Canada

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

EFFECTIVE DATE: February 20, 1992.

FOR FURTHER INFORMATION CONTACT: Rick Herring or Magd Zalok, Office of Countervailing Investigations, Import Administration, U.S. Department of Commerce, room B099, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone (202) 377-3530 or 377-4162, respectively.

Alignment of Antidumping and Countervailing Duty Cases

On December 6, 1991, we published a preliminary affirmative countervailing duty determination pertaining to pure and alloy magnesium from Canada (56 FR 63927). The notice stated that we would make our final countervailing duty determination by February 12, 1992.

On February 11, 1992, in accordance with section 705(a)(1) of the Tariff Act of 1930, as amended (the "Act"), we received a request from petitioner to extend the due date for the final countervailing duty determination to coincide with the date of the final determination in the antidumping duty investigation of pure and alloy magnesium from Canada. Although a

request for postponement was due 10 days prior to the date of the Department's final determination (February 3, 1992), the 10 day time limit is for the benefit of parties to the proceeding. In this case, we notified all parties of our intent to postpone the final determination and we received no objections. In addition, we have no objections to extending the final determination at this time because the purpose of postponement is to facilitate and simplify parallel investigations for the interested parties, as well as for the Department and the International Trade Commission. Accordingly, we are extending the final determination in this countervailing duty investigation to not later than April 27, 1992.

In accordance with section 705 of the Act, and 19 CFR 355.20(c)(ii), the Department will direct the U.S. Customs Service to terminate the suspension of liquidation in the countervailing duty proceeding as of April 4, 1992. No cash deposits or bonds for potential countervailing duties will be required for merchandise which enters the United States on or after April 4, 1992. This suspension of liquidation will not be resumed unless and until the Department publishes a countervailing duty order. We will also direct the U.S. Customs Service to maintain the suspension of any entries suspended between December 6, 1991 and April 3, 1992, until the conclusion of this investigation.

The U.S. International Trade Commission is being advised of this postponement. This notice is published pursuant to section 705(d) of the Act.

Dated: February 12, 1992.

Alan M. Dunn,

Assistant Secretary for Import Administration.

[FR Doc. 92-3959 Filed 2-19-92; 8:45 am]

BILLING CODE 3510-DS-M

INTERNATIONAL TRADE COMMISSION

[Invs. Nos. 701-TA-309 and 731-TA-528 and 529 (Final)]

Notice of Institution and Rescheduling of Investigation; Magnesium from Canada and Norway

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of final antidumping investigations and rescheduling of the ongoing countervailing duty investigation regarding imports of pure and alloy magnesium from Canada.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigations Nos. 731-TA-528 and 529 (Final) under section 735(b) of the Tariff Act of 1930 (the act) [1] to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Canada and Norway of pure and alloy magnesium,[2] that have been found by the U.S. Department of Commerce (Commerce), in preliminary determinations, to be sold in the United States at less than fair value (LTFV).

The Commission also gives notice of the schedule to be followed in these antidumping investigations and the rescheduling of the ongoing countervailing duty (CVD) investigation regarding imports of pure and alloy magnesium from Canada (inv. No. 701-TA-309 (Final)), which the Commission instituted effective December 4, 1992.[3]

[1] 19 U.S.C. 1673d(b).

[2] 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 magnesium contains less than 99.8 percent magnesium by weight, with magnesium being the largest metallic element in the alloy by weight. Granular and secondary magnesium are excluded from the scope of these investigations. Pure and alloy magnesium are provided for in subheadings 8104.11.00 and 8104.19.00, respectively, of the Harmonized Tariff Schedule of the United States (HTS).

[3] 56 F.R. 66975, Dec. 20, 1991.

The schedules for the subject investigations will be identical, pursuant to Commerce's alignment of its final subsidy and dumping determinations. Unless these investigations are extended, Commerce will make its final CVD and LTFV determinations on or before April 27, 1992, and the Commission will make its final injury determinations on or before June 16, 1992.[4]

For further information concerning the conduct of these investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E,[5] and part 207, subparts A and C.[6]

EFFECTIVE DATE: February 18, 1992.

FOR FURTHER INFORMATION CONTACT: Fred 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.

SUPPLEMENTARY INFORMATION:

Background

The antidumping investigations are being instituted as a result of affirmative preliminary antidumping determinations by Commerce that imports of pure and alloy magnesium from Canada and Norway are being sold in the United States at less than fair value within the meaning of section 733 of the act.[7] The antidumping investigations were requested in a petition filed on September 5, 1991, by Magnesium Corp. of America (Magcorp), Salt Lake City, UT.

Participation in the Investigations and Public Service List

Persons wishing to participate in the antidumping investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules, not later than twenty-one (21) days after publication of this notice in the Federal Register. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to 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 § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final antidumping investigations available to authorized applicants under the APO issued in these investigations, provided that the application is made not later than twenty-one (21) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff Report

The prehearing staff report in these investigations will be placed in the nonpublic record on April 21, 1992, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules.

Hearing

The Commission will hold a hearing in connection with all of the subject investigations beginning at 9:30 a.m. on May 6, 1992, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before April 28, 1992. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on May 1, 1992, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 601.13(f), and 207.23(b) of the Commission's rules.

Written Submissions

Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.22 of the Commission's rules; the deadline for filing is April 30, 1992. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.24 of the Commission's rules. The deadline for filing posthearing briefs is May 13, 1992; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before May 13, 1992. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ 201.6, 207.3, and 207.7 of the Commission's rules.

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

Authority: These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules.

By order of the Commission.

Issued: February 28, 1992.

Kenneth R. Mason,

Secretary.

[FR Doc. 92-5132 Filed 3-3-92; 8:45 am]

BILLING CODE 7020-02-M

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

[5] 19 CFR part 201.

[6] 19 CFR part 207.

[7] 19 U.S.C. § 1673b.

DC 20230; telephone (202) 377-3530 or (202) 377-5055, respectively.

Postponement

On March 13, 1992, the Department of Commerce (the Department) extended the final determinations in these investigations until May 18, 1992 (57 FR 8860). These extensions were made at the request of Norsk Hydro Canada Inc. and Norsk Hydro a.s, respondents in these investigations. On May 7, 1992, these respondents amended their extension request, and requested that the Department grant the full extension for the final determinations in the antidumping duty investigations until not later than 135 days after publication of the preliminary determinations in the Federal Register.

We find no compelling reason to deny respondents' request. Therefore, pursuant to 19 CFR 353.20(b)(1), we are postponing the date of the final determinations in these investigations until not later than July 6, 1992. In accordance with section 705(a)(1) of the Tariff Act of 1930, as amended (the Act) (19 U.S.C. 1671d(a)(1)), the final determination in the countervailing duty investigation is also being postponed until not later than July 6, 1992.

The U.S. International Trade Commission is being advised of this postponement, in accordance with section 735(d) of the Act.

This notice is published pursuant to section 735(a)(2) of the Act and 19 CFR 353.20(b)(2).

Dated: May 11, 1992.

Alan M. Dunn,

Assistant Secretary for Import Administration.

[FR Doc. 92-11510 Filed 5-14-92; 8:45 am]

BILLING CODE 3510-DS-M

DEPARTMENT OF COMMERCE

International Trade Administration

[A-122-814, A-403-803, C-122-815]

Postponement of Final Antidumping Duty Determinations on Pure and Alloy Magnesium From Canada and Norway, and Final Countervailing Duty Determination on Pure and Alloy Magnesium From Canada

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

EFFECTIVE DATE: May 15, 1992.

FOR FURTHER INFORMATION CONTACT: Rick Herring or Stephanie L. Hager, Office of Countervailing Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington,

impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

SUPPLEMENTARY INFORMATION: On February 18, 1992, the Commission instituted the subject antidumping investigations and issued a revised schedule to be followed in the subject countervailing duty investigation.[1] On May 11, 1992, the U.S. Department of Commerce extended the date for its final determinations in these investigations from May 18, 1992, to July 6, 1992. The Commission, therefore, is revising its schedule in these investigations to conform with Commerce's new schedule.

The Commission's new schedule for the investigations is as follows: Requests to appear at the hearing must be filed with the Secretary to the Commission not later than July 3, 1992; the deadline for filing prehearing briefs is July 8, 1992; the prehearing conference will be held at the U.S. International Trade Commission Building at 9:30 a.m. on July 10, 1992; the hearing will be held at the U.S. International Trade Commission Building at 9:30 a.m. on July 14, 1992; and the deadline for filing posthearing briefs is July 22, 1992.

For further information concerning the conduct of these investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E,[2] and part 207, subparts A and C.[3]

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

Issued: May 13, 1992.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 92-11809 Filed 5-19-92; 8:45 am]

BILLING CODE 7020-02-M

Revised Schedule, Magnesium from Canada and Norway; Invs. Nos. 701-TA-309 and 731-TA-528 and 529 (Final)

AGENCY: United States International Trade Commission.

ACTION: Revised schedule for the subject investigations.

EFFECTIVE DATE: May 12, 1992.

FOR FURTHER INFORMATION CONTACT: Fred Fischer (202-205-3179), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-

[A-122-814]

Pure and Alloy Magnesium From Canada: Final Affirmative Determination; Rescission of Investigation and Partial Dismissal of Petition

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

EFFECTIVE DATE: July 13, 1992.

FOR FURTHER INFORMATION CONTACT: Magd Zalok, Office of Countervailing Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC, 20230; telephone (202) 377-4162.

FINAL DETERMINATION AND RESCISSION OF INVESTIGATION: The Department determines that pure magnesium from Canada is being, or likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Act) (19 U.S.C. 1673d(a)). The estimated margin is shown in the "Suspension of Liquidation" section of this notice. In addition, we are rescinding our investigation of alloy magnesium.

Case History

Since the publication of our preliminary determination on February 20, 1992 (57 FR 6092), the following events have occurred: In response to requests from Norsk Hydro Canada Inc. (NHCI), we postponed the deadlines for the final determinations in these cases (57 FR 508860, March 13, 1992) and (57 FR 20809, May 15, 1992). On April 27, 1992, the Department preliminarily determined that pure and alloy magnesium are two classes or kinds of merchandise (see discussion, below).

Class or Kind of Merchandise

As stated above, the Department preliminarily determined that pure and alloy magnesium are two separate classes or kinds of merchandise (*see* April 27, 1992 Memorandum to Francis J. Sailer). The Department's decision was based on numerous submissions of factual information by the parties to this proceeding, as well as information collected by the Department at verification. Since the Department's preliminary determination on class or kind, we have received no new arguments on this issue. For the reasons discussed below, we determine that pure and alloy magnesium constitute two separate classes or kinds of merchandise.

The Department is permitted to separate products under investigation into separate classes or kinds of merchandise based on the criteria set forth in *Diversified Products Corporation* v. *United States*, 6 CIT 155, 572 F. Supp. 883 (1983) ("Diversified"). According to Diversified, the Department may rely upon the following factors in determining whether products belong to the same class or kind of merchandise: (1) The general physical characteristics of the merchandise; (2) the ultimate use of the merchandise; (3) the expectations of the ultimate purchaser; (4) the channels of trade in which the product is sold; and (5) the manner in which the product is advertised and displayed. See e.g., Antifriction Bearings (Other than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, 54 FR 18992 (May 3, 1989). Our analysis of pure and alloy magnesium in light of the Diversified criteria supports a finding that these two products are separate classes or kinds of merchandise.

Although the percentages of magnesium, by weight, contained in pure and alloy magnesium can be very similar, the addition of alloying elements to pure magnesium clearly results in products with different physical characteristics. Pure magnesium is a soft metal of low strength and low corrosion resistance. When alloyed with other elements, however, the mechanical and physical properties of the magnesium are significantly altered, becoming harder and stronger and possessing a high corrosion resistance. While much of the production process for pure and alloy magnesium is the same, the final stage in the production of alloy magnesium is more costly, requiring alloying furnaces for the addition of alloying agents and more controlled conditions throughout the remaining production process.

The different ultimate uses of pure and alloy magnesium offer the strongest support for separating these products into two classes or kinds of merchandise. There is a considerable lack of interchangeability between pure and alloy magnesium. While pure magnesium is used primarily as a chemical in the aluminum alloying and desulfurization industries, alloy magnesium is a structural material, used primarily for die casting.

Because of the different ultimate uses of pure and alloy magnesium, along with their lack of interchangeability, it follows that customers have different expectations for the two metals (e.g., only alloy magnesium is suitable for die or gravity casting). The different expectations of the pure and alloy customer is also evidenced in the highly controlled nature of the final stage in the production process for alloy magnesium. Because of its specialized nature, customers of alloy magnesium are very interested in how it is produced. This degree of specialization and customer interest in the production process is typically not present in the manufacture of pure magnesium.

The channels of trade for pure and alloy magnesium are very similar. Both pure and alloy magnesium are typically sold directly by producers to end-users. Furthermore, some companies use the same sales staff for both pure and alloy magnesium.

Throughout these investigations, we have seen advertising which applies to only pure and alloy magnesium and advertising which applies to both. Therefore, the way in which the product is advertised and displayed is not particularly instructive for purposes of our class or kind analysis.

In sum, our analysis of pure and alloy magnesium in light of the Diversified criteria supports a finding that these products should be separate classes or kinds of merchandise. Although there is evidence that the channels of distribution for these two products are similar, the product characteristics, ultimate uses, and expectations of the customer show that pure and alloy magnesium are two distinct classes or kinds of merchandise.

Rescission of Investigation With Respect to Alloy Magnesium

The dumping allegation presented in Magnesium Corporation of America's ("Magcorp's") September 5, 1991 petition contained pricing information only with respect to pure magnesium. Prior to the Department's preliminary determination that pure and alloy magnesium are two separate classes or kinds of merchandise, Magcorp submitted new information concerning the prices it believed were being charged in the United States for alloy magnesium by Norsk Hydro.

The Department has determined that the evidence supporting petitioner's dumping allegation regarding alloy magnesium is insufficient. This determination is based on the following facts:

- Significant terms of petitioner's and Norsk Hydro's sales referred to in the new allegation were not described in detail (e.g., the scrap buy-back program). Without terms, the Department is unable to quantify an accurate net selling price.
- Petitioner only provided data on the alloy prices that petitioner, allegedly, had to charge to meet the prices on magnesium from Canada and Norway

without any explanation of how these prices are representative of petitioner's U.S. selling price.

• There is no indication in any of petitioner's supporting information as to the source country for the foreign magnesium referenced by petitioner.

Because the evidence provided by the petitioner is insufficient to support the dumping allegation against alloy magnesium, we are rescinding the portion of this investigation dealing with alloy magnesium from Canada.

Scope of the Investigation

The product covered by this investigation is pure magnesium from Canada. Pure unwrought magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Granular and secondary magnesium are excluded from the scope of this investigation. Pure magnesium is currently classified under subheading 8104.11.0000 of the Harmonized Tariff Schedule ("HTS"). Although the HTS subheading is provided for convenience and customs purposes, our written description of the scope of this proceeding is dispositive.

"On Behalf of" Issue

Norsk Hydro has challenged petitioner's ability to file the petition and has requested that the Department dismiss the petition and terminate this investigation. Norsk Hydro argues that this investigation is being conducted in violation of U.S. law since the petitioner is acting alone and not on behalf of the domestic industry. After finding no opposition to the petition, the Department concluded in the preliminary determination that there was no basis to say that the petition was not filed on behalf of the domestic industry. Norsk Hydro claims that the Court of International Trade ("CIT"), the Court of Appeals for the Federal Circuit ("Federal Circuit"), and a panel established under the General Agreement on Tariffs and Trade ("GATT") have interpreted the phrase "on behalf of" as requiring an affirmative showing of support by others in the domestic industry.

First, Norsk Hydro cites *Suramericana de Aleaciones Laminadas, C.A.* v. *United States*, 746 F. Supp. 139, 144 (CIT 1990), No. 91-1015 (Fed. Cir. Oct. 5, 1990), in which the CIT held that an interested party must show that a majority of the domestic industry backs its position. In Suramericana, the petitioner lacked standing because only thirty-four percent of the domestic industry supported the petition for an investigation. *Id.* at 150. Norsk Hydro argues that in this investigation, petitioner clearly lacks standing because it is the only company to support the petition and represents twenty-two percent of the industry. Norsk Hydro concludes that petitioner did not act "on behalf of" the domestic industry and, therefore, does not have standing to initiate the investigation.

Second, Norsk Hydro claims that relevant case precedents reaffirm that petitioner does not have standing in this investigation. Norsk Hydro cites *Oregon Steel Mills, Inc.* v. *United States*, 862 F.2d 1541, 1545 (Fed. Cir. 1988), to substantiate the assertion that "industry support is an essential part of the merits of an affirmative determination."

Finally, Norsk Hydro claims that Commerce' finding of standing is inconsistent with a GATT panel decision, United States—Imposition of Anti-Dumping Duties on Imports of Seamless Steel Hollow Products from Sweden ADP/47 (Aug. 20, 1990) ("Swedish Steel"). Under similar circumstances, this GATT panel rejected an affirmative standing determination by the Department and stated that "on behalf of the industry affected' implies that such a request must have the authorization or approval of the industry affected." *Id.* at ¶ 5.9. Norsk Hydro contends, therefore, that Commerce's conduct violated U.S. obligations under the GATT and Antidumping Code.

The Department disagrees with Norsk Hydro and continues to find that MagCorp filed the petition on behalf of the domestic industry in the instant investigation. The Federal Circuit recently reversed the CIT's decision in Suramerica and upheld the Department's interpretation of the statutory phrase "on behalf of." *Suramericana de Aleaciones Laminadas, C.A.* v. *United States*, Slip Op. 91-1015, —1055 (June 11, 1992). The Federal Circuit explained that nothing in the statute or legislative history indicates the degree of support that must be shown before the Department may accept a petition as filed "on behalf of" the domestic industry. The court noted that, absent any indication of Congressional intent, there are several possible interpretations of the statute but that the CIT erred in choosing its interpretation over that of the Department (citing *Chevron U.S.A. Inc.* v. *Natural Resources Defense Fund*, 467 U.S. 837, 866 (1984)). The Federal Circuit held that the Department's interpretation of the phrase "on behalf of" is a permissible interpretation of the statute. The Oregon Steel decision, as the Federal Circuit noted, did not address the issue of quantification of support required by the phrase "on behalf of." The Federal Circuit's decision in Suramerica follows numerous CIT decisions upholding Commerce's interpretation of the phrase "on behalf of." For example, in *Citrosuco Paulista* v. *United States*, 704 F. Supp. 1075, 1080 (CIT 1988), the CIT held "neither the statute, nor Commerce's regulations require a petitioner to establish affirmatively that it has the support of a majority of a particular industry, and the Court declines to impose such a requirement." See also, *Comeau Seafoods* v. *United States*, 724 F. Supp. 1407, 1411 (CIT 1989); *Sandvik AB* v. *United States*, *721 F. Supp. 1322, 1328 (CIT 1989)*, *Vitro Flex* v. *United States*, 714 F. Supp. 1229, 1235 (CIT 1989). The CIT has suggested that the Department may dismiss petitions that are not actively supported by a majority of the domestic industry, but has found no statutory requirement for doing so. *Citrosuco Paulista* v. *United States*, 704 F. Supp. at 1095.

At the outset of this investigation, the petitioner clearly stated that it had brought its petition "on behalf of" the domestic producers of pure and alloy magnesium. While the two other domestic producers chose not to affirmatively support the petition, they declined the Department's published invitation to oppose the investigation. Absent any showing of opposition by domestic producers, the Department properly continued the investigation. The Department's actions in this regard are consistent with the Federal Circuit's opinion in Suramerica.

In Suramerica, the Federal Circuit also rejected the argument that a presumption of standing for the petitioner violates U.S. obligations under the GATT and the Subsidies Code. As the Federal Circuit noted, the decision in Swedish Steel was limited in scope, by the panel's express language, to the specific case before it. Furthermore, as the Federal Circuit stated, GATT interpretations are not controlling over U.S. law: "If the statutory provisions at issue here are inconsistent with the GATT, it is a matter for Congress and not this court to decide and remedy." Slip Op. at 18.

In sum, the Department's interpretation of the phrase "on behalf of" in this case is consistent with the Federal Circuit's decision in Suramerica. An affirmative showing of support by the domestic industry was not required in order for the Department to conduct these investigations. The evidence reviewed by the Department supports the determination that MAGCORP's petition was brought "on behalf of" the domestic industry.

Critical Circumstances

On March 4, 1992, petitioner alleged that "critical circumstances" existed with respect to imports of pure and alloy magnesium from Canada. Section 733(e)(1) of the Act provides that critical circumstances exist when:

(A)(i) There is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation, or (ii) the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject of investigation at less than its fair value, and

(B) There have been massive imports of the merchandise which is the subject of the investigation over a relatively short period.

Pursuant to section 735(a)(3)(B) of the Act, and section 353.16(f) of the Department's regulations, we generally consider the following factors in determining whether imports have been massive over a short period of time: (1) the volume and value of the imports; (2) seasonal trends (if applicable); and (3) the share of domestic consumption accounted for by imports. (See, *e.g.*, Silicon Metal from Brazil, 56 FR 26977, June 12, 1991). If imports during the period immediately following the filing of a petition increase by at least 15 percent over imports during a comparable period immediately preceding the filing of a petition, we consider them massive.

Since the petition was filed on September 5, 1991, we compared the volume of imports for NHCI during the three month period from the filing of the petition, September 1991 through November 1991, to a comparable period immediately preceding the filing of the petition (June through August 1991). We believe that use of the minimum period of three months (provided in section 353.16(g) of the Department's regulation) best serves the objective of determining whether critical circumstances exist, since the Department directed the U.S. Customs Service to suspend liquidation on or after December 6, 1991, as a result of the affirmative preliminary determination in the countervailing duty investigation of pure and alloy magnesium from Canada. Including the three months after the CVD suspension of liquidation in our critical circumstances analysis could mask the companies' attempts to bring in imports prior to any suspension of liquidation.

NHCI failed to provide the Department with the necessary information regarding its volume of pure magnesium exports to the United States. Therefore, as best information available, we used the volume of imports provided in the United States Import Statistics (IM-146) in our analysis of critical circumstances. Based on this, we determine that NHCI's imports of pure magnesium have been massive over a relatively short period.

It is our standard practice to impute knowledge of dumping under section 735(a)(3)(A)(ii) of the Act when the estimated margins in our determinations are of such a magnitude that the importer should realize that dumping exists with regard to the subject merchandise. Normally we consider estimated margins of 25 percent or greater to be sufficient. See, *e.g.*, Final Determinations of Sales at Less than Fair Value: Antifriction Bearings (Other Than Tapered Roller Bearings) and Parts Thereof From the Federal Republic of Germany, 54 FR 18992, (May 3, 1989).

Because NHCI's margin exceeds 25 percent and because we found that NHCI's imports of pure magnesium were massive over relatively short period of time, we determine that critical circumstances exist with respect to this company. With respect to Timminco's imports of pure magnesium, we determine that no critical circumstances exist. This finding is in accordance with section 353.16 of the Department's regulations. (19 CFR 353.16) (1991).

Period of Investigation

The period of investigation (POI) is April 1, 1991 through September 30, 1991.

Such or Similar Comparisons

We find that pure magnesium constitutes one such or similar category of merchandise. All of our comparisons were based on sales of identical merchandise.

Best Information Available

We have determined, in accordance with section 776(c) of the Act, that the use of best information available is appropriate for NHCI. Section 776(c) requires the Department to use the best information available "whenever a party or any other person refuses or is unable to produce information requested in a timely manner and in the form required, or otherwise significantly impedes an investigation * * *" Given NHCI's failure to respond to sections B, C, and D of the Department's questionnaire, this section of the Act applies.

In deciding what to use as best information available, section 353.37(b) of the Department's regulations (19 CFR 353.37(b) (1991)) provides that the Department may take into account whether a party refuses to provide requested information. Thus, the Department determines on a case-by-case basis what is the best information available. Given NHCI's refusal to submit its responses to sections B, C, and D of the questionnaire, we assigned it the highest calculated margin based on information submitted by petitioner regarding pure magnesium, as best information available. This margin is 31.33 percent.

Fair Value Comparisons

To determine whether sales of pure magnesium by Timminco to the United States were made at less than fair value, we compared the United States price to the foreign market value, as specified in the "United States Price" and "Foreign Market Value" sections of this notice.

United States Price

All of Timminco's sales were made directly to unrelated U.S. customers price to importation. Therefore, U.S. Price was based on purchase price in accordance with section 772(b) of the Act. Exporter's sales price methodology was not indicated by other circumstances.

We calculated purchase price based on packed prices to unrelated customers in the United States. We made deductions, where appropriate, for foreign inland freight, U.S. brokerage and handling expenses, U.S. duties, and U.S. freight, in accordance with section 772(d)(2) of the Act. We also made deductions, where appropriate, for discounts.

We recalculated credit expenses for U.S. sales to reflect the company's actual short-term interest rates during the period of investigation and to deduct the discount from the selling price before calculating the actual credit expense incurred on each sale.

Foreign Market Value

In order to determine whether Timminco had adequate sales of magnesium in the home market to serve as a basis for calculating foreign market value (FMV), we compared the volume of home market sales to the aggregate volume of third country sales, in accordance with 19 CFR 353.48(a). We have determined that home market sales were less than five percent of the aggregate volume of third country sales. Therefore, FMV was based on third country sales.

We based our selection of the appropriate third country on whether the third country had an "adequate" volume of sales, within the meaning of 19 CFR 353.49(b)(1). We selected Japan because the merchandise sold in the

United States and because Japan constituted Timminco's largest third country market.

We calculated FMV on the basis of prices to unrelated customers in Japan. We made deductions, where appropriate, for foreign inland freight, ocean freight, marine insurance, and packing expenses. We made a circumstance of sale adjustment, where appropriate, for differences in credit costs pursuant to 19 CFR 353.56(a). Where appropriate, we added U.S. packing to FMV, in accordance with Section 773(a)(1) of the Act.

We recalculated third country credit expenses to reflect the company's actual short-term interest expenses for the period of investigation.

Currency Conversion

We made currency conversions in accordance with § 353.60 (a) of the Department's regulations. All currency conversions were made at the rates certified by the Federal Reserve Bank.

Verification

Pursuant to section 776(b) of the Act, we verified the information used in reaching the final determination in this investigation. We used standard verification procedures, including examination of relevant accounting records and original source documents provided by respondents. Our verification results are outlined in detail in the public versions of our verification report, which are on file in the Central Records Unit (Room B-099) of the Main Commerce Building.

Comments

All written comments submitted by the interested parties in this investigation which have not been previously addressed in this notice are addressed below:

Comment 1

NHCI argues that the Department should revise certain elements of Magcorp's constructed value calculations used in the Department's calculation of NHCI's foreign market value since they are not reasonably quantified or valued.

DOC Position

The Department reviewed Magcorp's allegation extensively at the time this case was initiated. We accepted petitioner's constructed value calculation because it was consistent with the Department's methodology. It was up to NHCI to provide a response that might demonstrate that petitioner's allegation was incorrect. Given that NHCI chose not to provide responses to the Department's questionnaire, Magcorp's allegation was accepted as the best information available.

Suspension of Liquidation

In accordance with section 735 (d) of the Act, we are directing the U.S. Customs Service to continue to suspend liquidation on all entries from NHCI of pure magnesium, as defined in the "Scope of Investigation" section of this notice. Also because we determined that critical circumstances exist with respect to NHCI, we are instructing the U.S. Customs Service to suspend liquidation of such entries that are entered or withdrawn from warehouse, for consumption, on or after the date which is 90 days prior to the publication of the notice of the preliminary determination in this investigation in the Federal Register. The U.S. Customs Service shall require a cash deposit equal to the estimated amounts by which the foreign market value of pure magnesium exceeds the United States price as shown below. This suspension of liquidation will remain in effect until further notice. The weighted-average margins for pure magnesium are as follows:

Manufacturer/producer/exporter	Weighted-average margin (Percent)
Norsk Hydro Canada Inc.	31.33
Timminco Limited	00.00
All Others	31.33

We are also directing the U.S. Customs Service to terminate suspension of liquidation of all entries of alloy magnesium pursuant to our rescission of the investigation of this class or kind of merchandise. The U.S. Customs Service shall release any cash deposits or bonds posted on entries of alloy magnesium made prior to this determination.

ITC Notification

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

This notice also serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 353.35(d). Failure to comply is a violation of the APO.

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

Dated: July 6, 1992.

Alan M. Dunn,

Assistant Secretary for Import Administration

[FR Doc. 92-16376 Filed 7-10-92; 8:45 am]

BILLING CODE 3510-DS-M

[A-403-803]

Pure and Alloy Magnesium From Norway: Final Negative Determination; Rescission of Investigation and Partial Dismissal of Petition

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

EFFECTIVE DATE: July 13, 1992.

FOR FURTHER INFORMATION CONTACT: The Office of Countervailing Investigations, Import Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1274.

FINAL DETERMINATION AND RESCISSION OF INVESTIGATION: We determine that pure magnesium from Norway is not being, nor is it likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended ("the Act") (19 U.S.C. 1673d(a)). In addition, we are rescinding our investigation of alloy magnesium.

Case History

Since the publication of our preliminary determination in the Federal Register (57 FR 6092, February 20, 1992), the following events have occurred.

On March 16, 1992, Norsk Hydro a.s ("Norsk Hydro") submitted revised sales listings for its home, third country, and U.S. markets. On March 25, 1992, Norsk Hydro submitted additional corrections to its U.S. sales listing. The Department verified the questionnaire responses of Norsk Hydro in Norway, Germany, and Canada from March 23 to April 3, 1992.

On April 27, 1992, the Department preliminarily determined that pure and alloy magnesium are two classes or kinds of merchandise, as discussed, below. A public hearing was held on May 1, 1992.

On May 7, 1992, Norsk Hydro requested that the Department extend the final determination in this investigation. Accordingly, on May 11, 1992, the Department extended the final determination to July 6, 1992 (57 FR 20809, May 15, 1992).

Class or Kind of Merchandise

As stated above, the Department preliminarily determined that pure and

alloy magnesium are two separate classes or kinds of merchandise (see April 27, 1992 Memorandum to Francis J. Sailer). The Department's decision was based on numerous submissions of factual information by the parties to this proceeding, as well as information collected by the Department at verification. Since the Department's preliminary determination on class or kind, we have received no new arguments on this issue. For the reasons discussed below, we determine that pure and alloy magnesium constitute two separate classes or kinds of merchandise.

The Department is permitted to separate products under investigation into separate classes or kinds of merchandise based on the criteria set forth in *Diversified Products Corporation* v. *United States*, 6 CIT 155, 572 F. Supp. 883 (1983) ("Diversified"). According to Diversified, the Department may rely upon the following factors in determining whether products belong to the same class or kind of merchandise: (1) The general physical characteristics of the merchandise; (2) the ultimate use of the merchandise; (3) the expectations of the ultimate purchaser; (4) the channels of trade in which the product is sold; and (5) the manner in which the product is advertised and displayed. See e.g., *Antifriction Bearings (Other than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany*, 54 FR 18992 (May 3, 1989). Our analysis of pure and alloy magnesium in light of the Diversified criteria supports a finding that these two products are separate classes or kinds of merchandise.

Although the percentages of magnesium, by weight, contained in pure and alloy magnesium can be very similar, the addition of alloying elements to pure magnesium clearly results in products with different physical characteristics. Pure magnesium is a soft metal of low strength and low corrosion resistance. When alloyed with other elements, however, the mechanical and physical properties of the magnesium are significantly altered, becoming harder and stronger and possessing a high corrosion resistance. While much of the production process for pure and alloy magnesium is the same, the final stage in the production of alloy magnesium is more costly, requiring alloying furnaces for the addition of alloying agents and more controlled conditions throughout the remaining production process.

The different ultimate uses of pure and alloy magnesium offer the strongest support for separating these products into two classes or kinds of merchandise. There is a considerable lack of interchangeability between pure and alloy magnesium. While pure magnesium is used primarily as a chemical in the aluminum alloying and desulfurization industries, alloy magnesium is a structural material, used primarily for die casting.

Because of the different ultimate uses of pure and alloy magnesium, along with their lack of interchangeability, it follows that customers have different expectations for the two metals (e.g., only alloy magnesium is suitable for die or gravity casting). The different expectations of the pure and alloy customer is also evidenced in the highly controlled nature of the final stage in the production process for alloy magnesium. Because of its specialized nature, customers of alloy magnesium are very interested in how it is produced. This degree of specialization and customer interest in the production process is typically not present in the manufacture of pure magnesium.

The channels of trade for pure and alloy magnesium are very similar. Both pure and alloy magnesium are typically sold directly by producers to end-users. Furthermore, some companies use the same sales staff for both pure and alloy magnesium.

Throughout these investigations, we have seen advertising which applies to only pure or alloy magnesium and advertising which applies to both. Therefore, the way in which the product is advertised and displayed is not particularly instructive for purposes of our class or kind analysis.

In sum, our analysis of pure and alloy magnesium in light of the Diversified criteria supports a finding that these products should be separate classes or kinds of merchandise. Although there is evidence that the channels of distribution for these two products are similar, the product characteristics, ultimate uses, and expectations of the customer show that pure and alloy magnesium are two distinct classes or kinds of merchandise.

Rescission of Investigation With Respect to Alloy Magnesium

The dumping allegation presented in Magnesium Corporation of America's ("Magcorp's") September 5, 1991 petition contained pricing information only with respect to pure magnesium. Prior to the Department's preliminary determination that pure and alloy magnesium are two separate classes or kinds of merchandise, Magcorp submitted new information concerning the prices it believed were being charged in the United States for alloy magnesium by Norsk Hydro.

The Department has determined that the evidence supporting petitioner's dumping allegation regarding alloy magnesium is insufficient. This determination is based on the following facts:

- Significant terms of petitioner's and Norsk Hydro's sales referred to in the new allegation were not described in detail (e.g., the scrap buy-back program). Without terms, the Department is unable to quantify an accurate net selling price.
- Petitioner only provided data on the alloy prices that petitioner, allegedly, had to charge to meet the prices on magnesium from Canada and Norway without any explanation of how these prices are representative of petitioner's U.S. selling price.
- There is no indication in any of petitioner's supporting information as to the source country for the foreign magnesium referenced by petitioner.

Because the evidence provided by the petitioner is insufficient to support the dumping allegation against alloy magnesium, we are rescinding the portion of this investigation dealing with alloy magnesium from Norway.

Scope of Investigation

The product covered by this investigation is pure magnesium from Norway. Pure unwrought magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Granular and secondary magnesium are excluded from the scope of this investigation. Pure magnesium is currently classified under subheading 8104.11.0000 of the Harmonized Tariff Schedule ("HTS"). Althought the HTS subheading is provided for convenience and customs purposes, our written description of the scope of this proceeding is dispositive.

"On Behalf Of" Issue

Norsk Hydro has challenged petitioner's ability to file the petition and has requested that the Department dismiss the petition and terminate this investigation. Norsk Hydro argues that this investigation is being conducted in violation of U.S. law since the petitioner is acting alone and not on behalf of the domestic industry. After finding no opposition to the petition, the Department concluded in the preliminary determination that there was no basis to say that the petition was not filed on behalf of the domestic industry. Norsk Hydro claims that the Court of International Trade ("CIT"), the Court of Appeals for the Federal Circuit

("Federal Circuit"), and a panel established under the General Agreement on Tariffs and Trade ("GATT") have interpreted the phrase "on behalf of" as requiring an affirmative showing of support by others in the domestic industry.

First, Norsk Hydro cites *Suramericana de Aleaciones Laminadas, C.A.* v. *United States*, 746 F. Supp. 139, 144 (CIT 1990), No. 91-1015 (Fed. Cir. Oct. 5, 1990), in which the CIT held that an interested party must show that a majority of the domestic industry backs its position. In Suramerica, the petitioner lacked standing because only thirty-four percent of the domestic industry supported the petition for an investigation. *Id.* at 150. Norsk Hydro argues that in this investigation, petitioner clearly lacks standing because it is the only company to support the petition and represents twenty-two percent of the industry. Norsk Hydro concludes that petitioner did not act "on behalf of" the domestic industry and, therefore, does not have standing to initiate the investigation.

Second, Norsk Hydro claims that relevant case precedents reaffirm that petitioner does not have standing in this investigation. Norsk Hydro cites *Oregon Steel Mills, Inc.* v. *United States*, 862 F.2d 1541, (Fed. Cir. 1988), to substantiate the assertion that "industry support is an essential part of the merits of an affirmative determination."

Finally, Norsk Hydro claims that Commerce's finding of standing is inconsistent with a GATT panel decision, United States—Imposition of Anti-Dumping Duties on Imports of Seamless Steel Hollow Products from Sweden ADP/47 (Aug. 20, 1990) ("Swedish Steel"). Under similar circumstances, this GATT panel rejected an affirmative standing determination by the Department and stated that " 'on behalf of the industry affected' implies that such a request must have the authorization or approval of the industry affected." *Id.* at ¶ 5.9. Norsk Hydro contends, therefore, that Commerce's conduct violated U.S. obligations under the GATT and Antidumping Code.

The Department disagrees with Norsk Hydro and continues to find that MagCorp filed the petition on behalf of the domestic industry in the instant investigation. The Federal Circuit recently reversed the CIT's decision in Suramerica and upheld the Department's interpretation of the statutory phrase "on behalf of." *Suramericana de Aleaciones Laminadas, C.A.* v. *United States*, Slip Op. 91-1015-1055 (June 11, 1992). The Federal Circuit explained that nothing in the statute or legislative history indicates the degree of support that must be shown before the Department may accept a petition as filed "on behalf of" the domestic industry. The court noted that, absent any indication of Congressional intent, there are several possible interpretations of the statute but that the CIT erred in choosing its interpretation over that of the Department (*citing Chevron U.S.A. Inc.* v. *Natural Resources Defense Fund*, 467 U.S. 837, 866, (1984)). The Federal Circuit further held that the Department's interpretation of the phrase "on behalf of" is a permissible interpretation of the statute. The Oregon Steel decision, as the Federal Circuit noted, did not address the issue of quantification of support required by the phrase "on behalf of."

The Federal Circuit's decision in Suramerica follows numerous CIT decisions upholding Commerce's interpretation of the phrase "on behalf of." For example, in *Citrosuco Paulista* v. *United States*, 704 F. Supp. 1075, 1080 (CIT 1988), the CIT held "neither the statute, nor commerce's regulations require a petitioner to establish affirmatively that is has the support of a majority of a particular industry, and the Court declines to impose such a requirement." See also, *Comeau Seafoods* v. *United States*, 724 F. Supp. 1407, 1411 (CIT 1989); *Sandvik AB* v. *United States*, 724 F. Supp. 1322, 1328 (CIT 1989); *Vitro Flex* v. *United States*, 714 F. Supp. 1229, 1235 (CIT 1989). The CIT has suggested that the Department may dismiss petitions that are not actively supported by a majority of the domestic industry, but has found no statutory requirement for doing so. *Citrosuco Paulista* v. *United States*, 704 F. Supp. at 1065.

At the outset of this investigation, the petitioner clearly stated that it had brought its petition "on behalf of" the domestic producers of pure and alloy magnesium. While the two other domestic producers chose not to affirmatively support the petition, they declined the Department's published invitation to oppose the investigation. Absent any showing of opposition by domestic producers, the Department properly continued the investigation. The Department's actions in this regard are consistent with the Federal Circuit's opinion in Suramerica.

In Suramerica, the Federal Circuit also rejected the argument that a presumption of standing for the petitioner violates U.S. obligations under the GATT and the Subsidies Code. As the Federal Circuit noted, the decision in Swedish Steel was limited in scope, by the panel's express language, to the specific case before it. Furthermore, as the Federal Circuit stated, GATT interpretations are not controlling over U.S. law: "If the statutory provisions at issue here are inconsistent with the GATT, it is a matter for Congress and not this court to decide and remedy." Slip Op. at 18.

In sum, the Department's interpretation of the phrase "on behalf of" in this case is consistent with the Federal Circuit's decision in Suramerica. An affirmative showing of support by the domestic industry was not required in order for the Department to conduct these investigations. The evidence reviewed by the Department supports the determination that Magcorp's petition was brought "on behalf of" the domestic industry.

Critical Circumstances

On March 4, 1992, petitioner filed a critical circumstances allegation. The narrative of this allegation, however, dealt solely with imports of magnesium from Canada. Nowhere did petitioner's submission allege that massive imports of Norwegian magnesium were being sold at less than fair value over a relatively short period. Furthermore, the import data supplied by the petitioner (the Department of Commerce IM-145 statistics) did not support such an allegation.

Because the petitioner provided neither a written allegation of critical circumstances nor information in support of an allegation in accordance with 19 CFR 353.16, we did not initiate a critical circumstances investigation with regard to magnesium from Norway.

Period of Investigation

The POI is April 1, 1991, through September 30, 1991.

Such or Similar Comparison

For pure magnesium, comparisons were made on the basis of: (1) Product type, (2) American Society for Testing and Materials ("ASTM") specification, (3) purity, (4) form, and (5) size.

We used home market sales as the basis for foreign market value for sales of pure magnesium, as described in the "Foreign Market Value" section of this notice. Where there were no sales of identical merchandise in the home market to compare to sales of merchandise in the United States, we used sales of the most similar merchandise based on the characteristics described above. All comparisons to products sold in the home market had difference in merchandise adjustments which were less than 20 percent of the total cost of manufacturing the U.S. merchandise.

Fair Value Comparisons

To determine whether sales of pure magnesium from Norway to the United States were made at less than fair value, we compared the United States price ("USP") to the foreign market value ("FMV"), as specified in the "United States Price" and "Foreign Market Value" sections of this notice. Based on these comparisons, we determine that Norsk Hydro made sales at not less than fair value.

United States Price

In calculating USP, the Department used purchase price, as defined in section 772(b) of the Act, for certain sales, both because the subject merchandise was sold to unrelated purchasers in the United States prior to its importation and because exporter's sales price ("ESP") methodology was not indicated by other circumstances. We also based USP on ESP, in accordance with section 772(c) of the Act, for those sales which were made to unrelated parties after importation into the United States.

We calculated purchase price based on prices to unrelated customers in the United States. We made deductions, where appropriate, for foreign inland freight, insurance, import duties, inland freight, inland freight between Montreal and Toledo, merchandise processing fees and broker fees in accordance with section 772(d)(2) of the Act. For the sales made during the period in which a value added tax ("VAT") was collected in Norway, we added to the net price the amount of VAT that was not collected by reason of exportation of the merchandise in accordance with section 772(d)(1)(c) of the Act.

Where USP was based on ESP, we calculated ESP based on prices to unrelated customers in the United States. We made deductions, where appropriate, for foreign inland freight, insurance, ocean freight, import duties, inland freight, freight allowances, brokerage and handling, and merchandise processing fees in accordance with section 772(e) of the Act. We made further deductions, where appropriate, for credit, commissions and in direct selling expenses, including warehousing charges, inventory carrying charges, advertising, and non-U.S. indirect selling expenses in accordance with section 772(e) of the Act. For sales made during the period in which a VAT was collected in Norway, we added to the net unit price the amount of VAT that was not collected by reason of exportation of the merchandise in accordance with section 772(d)(1)(C) of the Act.

We excluded from our analysis one sample sale because it involved an extremely small quantity of merchandise which would have no effect on our calculations.

Foreign Market Value

In accordance with section 773(a) of the Act, we calculated FMV based on home market sales.

In order to determine whether there were sufficient sales of such or similar merchandise in the home market to serve as the basis for calculating FMV, we compared the volume of home market sales of pure magnesium to the aggregate volume of third country sales of the such or similar category, in accordance with section 773(a)(1) of the Act. The volume of home market sales of pure magnesium exceeded five percent of the aggregate volume of third country sales.

We based FMV on prices to unrelated customers in Norway. We made deductions, where appropriate, for rebates and quality control. We deducted home market packing costs and added U.S. packing costs, in accordance with section 773(a)(1)(B) of the Act.

Where USP was based on purchase price, we made adjustments to FMV for differences in circumstances of sale. We adjusted for differences in credit, warehouse handling, and VAT in accordance with 19 CFR 353.56.

For comparisons involving ESP transactions, we made adjustments to FMV for differences in circumstances of sale. We adjusted for differences in credit and VAT in accordance with 19 CFR 353.56. We made further deductions for home market indirect selling expenses, including advertising, inventory carrying costs, and indirect selling expenses, capped by the sum of commissions paid and indirect selling expenses incurred on ESP sales, in accordance with 19 CFR 353.56(b)(2).

Norsk Hydro reported certain advertising expenses in the home market as direct selling expenses. Because Norsk Hydro did not adequately demonstrate that such expenses were directed at its customer's customer, we have reclassified these expenses as indirect selling expenses.

Norsk Hydro requested a difference in merchandise adjustment for one sale. Because Norsk Hydro provided no cost information to support this difference in merchandise adjustment, as requested by the Department is its original questionnaire, we are not allowing the downward adjustment to FMV.

Currency Conversions

We made currency conversions in accordance with 19 CFR 353.60(a). All currency conversions were made at the rates certified by the Federal Reserve Bank.

Verification

Pursuant to section 776(b) of the Act, we verified the information used in reaching the final determination in this investigation.

Interested Party Comments

Comment 1

Respondent argues that in the Department's preliminary determination, it erred in reclassifying Norsk Hydro's reported home market advertising expenses as indirect selling expenses. According to respondent, 19 CFR 353.56(a)(2) authorizes the Department to treat advertising expenses as direct selling expenses and make adjustments where the producer demonstrates that the cost of advertising was undertaken on behalf of its customers. Respondent argues that its advertisements do, in fact, demonstrate that respondent assumed expenses on behalf of its customers.

Respondent further argues that its direct advertising expense claim consisted only of those expenses bearing a "direct relationship to the sales compared" as is required by the Department's regulations. Respondent claims that its advertising encouraged consumption of primary magnesium, the merchandise subject to investigation, since the ads specifically highlighted the benefits of pure magnesium to the customers of products made by respondent's customers. That respondent's customers transform the magnesium is of no consequence to the "direct relationship" of the advertisements to the sales under investigation because the advertisements focus on the benefits of magnesium in later developed products. Finally, respondent argues that, given the derived demand for magnesium, it would be unreasonable for the Department to conclude that respondent's claimed direct advertising expenses should be reclassified as indirect selling expenses because they promote the company's image. Citing *Brother Indus. Ltd.* v. *United States*, 540 F. Supp. 1341 at 1366 (CIT 1982), where the CIT stated that "the particular product in question * * * is the sole subject of the advertisement, such advertisement does not lose its direct relationship to the sales of that product under investigation," respondent states

that its advertisements were not undertaken to promote the company's image, but rather the specific magnesium products under investigation.

DOC Position

Norsk Hydro has failed to demonstrate that its home market advertising expenses were directed at its customer's customer. Of Norsk Hydro's *various* home market advertising expenses, it has only recently provided the Department with an explanation of how *one* sample advertisement is directed to its customer's customer. This one example is not a sufficient indication that all of Norsk Hydro's home market advertising was directed to its customer's customer. Therefore, we have continued to classify this expense as an indirect selling expense.

Comment 2

Respondent argues that two small quantity home market sales which are not reflective of Norsk Hydro's usual commercial quantities be excluded from the Department's foreign market value calculations.

DOC Position

Our review of Norsk Hydro's home market sales listing does not support the claim that these two small quantity sales are not reflective of Norsk Hydro's usual commercial quantities. Therefore, we used these sales in our calculations.

Suspension of Liquidation

We are directing the U.S. Customs Service to terminate suspension of liquidation of all entries of pure magnesium by virtue of our finding of sales made at not less than fair value. We are also directing the U.S. Customs Service to terminate suspension of liquidation of all entries of alloy magnesium pursuant to our rescission of the investigation of this class or kind of merchandise. The U.S. Customs Service shall release any cash deposits or bonds posted on entries of pure and alloy magnesium made prior to this determination.

ITC Notification

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

This notice also serves as the only reminder to parties subject to administrative protective order ("APO") of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 353.34(d). Failure to comply is a violation of the APO.

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

Dated: July 6, 1992.

Alan M. Dunn,

Assistant Secretary for Import Administration.

[FR Doc. 92-16378 Filed 7-10-92; 8:45 am]

BILLING CODE 3510-DS-M

[C-122-815]

Final Affirmative Countervailing Duty Determinations: Pure Magnesium and Alloy Magnesium From Canada

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

EFFECTIVE DATE: July 13, 1992.

FOR FURTHER INFORMATION CONTACT: Rick Herring or Magd Zalok, Office of Countervailing Investigations, Import Administration, U.S. Department of Commerce, room B099, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-3530 or 377-4162, respectively.

FINAL DETERMINATION:

Case History

Since the publication of the preliminary determination (56 FR 63927, December 6, 1991), the following events have occurred. On February 11, 1992, petitioner, the Magnesium Corporation of America (Magcorp), requested that the final determinations of the countervailing duty investigations be extended to coincide with the date of the final determinations in the antidumping duty investigations of pure magnesium and alloy magnesium from Canada. The final determinations in the antidumping investigations were postponded, at the request of respondents, on March 13, 1992 and May 15, 1992 to July 6, 1992 (57 FR 8860 and 57 FR 20809, respectively).

On February 24, 1992, a supplemental questionnaire was issued to the Government of Quebec regarding certain aspects of Hydro-Quebec's Risk and Profit Sharing Program. On April 27, 1992, we divided the subject merchandise into two different classes or kinds of merchandise, pure magnesium and alloy magnesium. (See the "Class or Kind of Merchandise" section of Pure and Alloy Magnesium from Canada: Final Affirmative Determination; Rescission of Investigation and Partial Dismissal of Petition, which is published concurrently with this notice, for a detailed discussion of this issue). At the same time, we also determined that alloy billets are included within the scope of the investigation of alloy magnesium. For the analysis underlying this determination, see the April 27, 1992 Memorandum to Francis J. Sailer, Deputy Assistant Secretary, regarding "Scope Issues" which is on file in the Central Records Unit (Room B-099) of the Main Commerce Building.

"On Behalf Of" Issue

Respondents have challenged petitioner's ability to file the petition and requested that the Department dismiss the petition and terminate these investigations. They argue that these investigations are being conducted in violation of U.S. law since the petitioner is acting alone and not on behalf of the domestic industry. They state that while the Department assumed in the preliminary determination that the petition was filed on behalf of the domestic magnesium industry, the Court of International Trade (CIT) in *Suramericana de Aleaciones Laminadas, C.A.* v. *United States*, 746 F. Supp. 139 (CIT 1990), No. 91-1015 (Fed. Cir. Oct. 5, 1990) (Suramerica) has held that an affirmative showing of support by the rest of the domestic industry is a necessary prerequisite for a petitioner to seek relief under U.S. trade laws.

Respondents further state that a presumption of standing violates U.S. obligations under the GATT and the Subsidies Code. They state that a recent GATT panel rejected a finding of standing under very similar circumstances to those present in these investigations. United States—Imposition of Antidumping Duties on Imports of Seamless Stainless Steel Hollow Products from Sweden, ADP/47 (Aug. 20, 1990) at paragraph 5.17. Respondents argue that the GATT Panel determined that the absence of opposition to an investigation by any domestic producer did not satisfy the Antidumping Code's standing requirements, which mirrors those of the Subsidies Code.

We determine that the petitioner does have standing to file these investigations. The Court of Appeals for the Federal Circuit (Federal Circuit) recently reversed the CIT's decision in Suramerica and upheld Commerce's interpretation of the statutory phrase "on behalf of." *Suramericana de Aleaciones Laminadas, C.A.* v. *United States*, Slip Op. 91-1015, -1055 (June 11, 1992). The Federal Circuit explained that nothing in the statute or legislative history indicates the degree of support that must be shown before the Department may accept a petition as having been filed "on behalf of" the domestic industry. The court noted that, absent any indication of Congressional intent, there are several possible interpretations of the statute but that the CIT erred in choosing its interpretation over that of the Department (citing *Chevron U.S.A. Inc.* v. *Natural Resources Defense Fund*, 467 U.S. 837, 866 (1984)). The Federal Circuit further held that the Department's interpretation of the phrase "on behalf of" is a permissible interpretation of the statute. The Oregon Steel decision, 862 F.2d 1541 (Fed. Cir. 1988), as the Federal Circuit noted, did not address the issue of quantification of support required by the phrase " on behalf of."

The Federal Circuit's decision in Suramerica follows numerous CIT decisions upholding Commerce's interpretation of the phrase "on behalf of." For example, in *Citrosuco Paulista* v. *United States*, 704 F. Supp. 1075, 1085 (CIT 1988), the CIT held "[n]either the statute nor Commerce's regulations require a petitioner to establish affirmatively that it has the support of a majority of a particular industry, and the Court declines to impsoe such a requirement." See also, *Comeau Seafoods* v. *United States*, 724 F. Supp. 1407, 1411 (CIT 1989); *Sandvik AB* v. *United States*, 721 F. Supp. 1322, 1328 (CIT 1989); and *Vitro Flex* v. *United States*, 714 F. Supp. 1229, 1235 (CIT 1989). The CIT has suggested that the Department may dismiss petitions that are not actively supported by a majority of the domestic industry, but has found no statutory requirement that it do so. *Citrosuco Paulista* v. *United States*, 704 F. Supp. at 1085.

At the outset of these investigations, the petitioner, Magcorp, clearly stated that it had brought its petitions "on behalf of" the domestic producers of pure and alloy magnesium. While the two other domestic producers chose not to support the petition affirmatively, they declined Commerce's published invitation to oppose the investigations. Absent any showing of opposition by domestic producers, the Department properly continued the investigations. The Department's actions in this regard are consistent with the Federal Circuit's opinion in Suramerica.

In Suramerica, the Federal Circuit also rejected the argument that a presumption that the petitioner is acting on behalf of the domestic industry violates U.S. obligations under the GATT and the Subsidies Code. As the Court noted, the decision in Imposition of Antidumping Duties on Imports of Seamless Stainless Steel Hollow Products from Sweden was limited in scope, by the Panel's express language, to the specific case before it. Furthermore, the Federal Circuit stated that GATT interpretations are not controlling over U.S. law: "If the statutory provisions at issue here are inconsistent with the GATT, it is a matter for Congress and not this court to decide and remedy." Slip Op. at 18.

In sum, Commerce's interpretation of the phrase "on behalf of" in this case is consistent with the Federal Circuit's decision in Suramerica. An affirmative showing of support by the domestic industry was not required in order for the Department to conduct these investigations. The evidence reviewed by the Department supports the determination that Magcorp's petition was brought "on behalf of" the domestic industry.

Scope of Investigations

The products covered by these investigations are pure magnesium and alloy magnesium from Canada. Pure magnesium contains at least 99.8 percent magnesium by weight and is sold in various slab and ingot forms and sizes. Magnesium alloys contain less than 99.8 percent magnesium by weight, with magnesium being the largest

metallic element in the alloy by weight, and are sold in various ingot and billet forms and sizes. Pure and alloy magnesium are currently provided for in subheadings 8104.11.0000 and 8104.19.0000, respectively, of the Harmonized Tariff Schedule (HTS). Although the HTS subheadings are provided for convenience and customs purposes, our written description of the scope of this proceeding is dispositive.

Secondary and granular magnesium are not included in these investigations. Our reasons for excluding granular magnesium are summarized in the Preliminary Determination of Sales at Less Than Fair Value: Pure and Alloy Magnesium From Canada (57 FR 6094, Feb. 20, 1992).

Analysis of Programs

For purposes of these determinations, the period for which we are measuring subsidies (the period of investigation) is calendar year 1990, which corresponds to the fiscal year of Norsk Hydro Canada Inc. (NHCI) and Timminco Limited.

During the period of investigation, NHCI made sales of magnesium produced by its parent company (Norsk Hydro a.s) in Norway. In order to measure the subsidy conferred upon NHCI, we deducted the value of the Norwegian merchandise from NHCI's total sales value. Since the subsidies provided to NHCI confer benefits on the production of merchandise, we allocated the subsidies only over the value of merchandise manufactured in Canada.

The subsidies provided to respondents benefit the production of both pure magnesium and alloy magnesium and cannot be segregated. Therefore, we have calculated a single estimated net subsidy for both classes or kinds of merchandise. Because there is a significant differential in the estimated net subsidy calculated for the two companies, we have assigned individual company rates for NHCI and Timminco pursuant to 19 CFR 355.20(d) (1991).

Based upon our analysis of the petition, responses to our questionnaires, verification and written comments from respondents, petitioner, and other interested parties, we determine the following:

A. Programs Determined to be Subsidies

We determine that subsidies are being provided to manufacturers, producers, or exporters in Canada of pure and alloy magnesium under the following programs:

1. Federal Funding for a Feasibility Study under the Canada-Quebec Subsidiary Agreement on Industrial Development

Under this Subsidiary Agreement, the Governments of Canada and Quebec established a program to provide financial assistance to companies to cover the cost of feasibility studies related to major industrial projects. This Subsidiary Agreement was implemented under the 1984 Canada-Quebec Economic and Regional Development Agreement (ERDA). ERDAs provide the legal basis for various departments of the federal and provincial governments to cooperate in the establishment of economic development programs. Subsidiary agreements, like the Subsidiary Agreement on Industrial Development, establish programs, delineate administrative procedures and set up the relative funding commitments of the federal and provincial governments. This Subsidiary Agreement was signed on January 23, 1985, and terminated on March 31, 1992. The last date for authorizing a project under this Agreement was March 31, 1990.

To qualify for funding under this program, the project to be studied must involve the establishment, expansion or modernization of a manufacturing or advanced processing facility. Maximum funding is 75 percent of the actual cost of the study.

Norsk Hydro a.s, the parent company of NHCI, received a grant to undertake a feasibility study under this program. The grant was funded equally by the Governments of Canada and Quebec. A condition of the grant was that it was to be repaid if the company commenced operations in Quebec.

We determine that the funds provided by the Government of Canada under this Subsidiary Agreement are countervailable because assistance under this Agreement is limited to companies located in a particular region of Canada (*i.e.*, the Province of Quebec). However, we determine that the funds provided by the Government of Quebec under the Subsidiary Agreement are not countervailable because the provincial funds were not limited to a specific enterprise or industry, or group of enterprises or industries.

Since NHCI commenced business operations in Quebec and, as a result, was obligated to repay the funds, we are treating the reimbursable grant as an interest-free, short-term loan rolled over from year to year. To calculate the benefit from the Government of Canada's portion of the funds provided to NHCI under this program, we calculated the amount of interest which should have been paid based on the number of days this "loan" was outstanding during the period of investigation. We used the national average short-term interest rate for 1990, as provided by the Government of Canada, to calculate the amount of interest that would have been paid had this reimbursable grant been in the form of a short-term commercial loan. We then divided this amount by NHCI's total sales of Canadian-produced merchandise for the period of investigation and calculated an estimated net subsidy of 0.10 percent *ad valorem* for NHCI. Timminco did not receive any benefits from this program.

Since NHCI reimbursed the Government of Canada for the funds received under the Subsidiary Agreement in 1990, and because the company will not receive any more assistance under this Subsidiary Agreement, we are not including the amount of this subsidy in our duty deposit rate.

2. Exemption from Payment of Water Bills

Under an agreement signed between NHCI and Le Societe du Parc Industriel du Centre du Quebec, the company is exempt from paying its water bills. Since no other company receives such an exemption, we determine this program to be countervailable since benefits are limited to a specific enterprise or industry, or a group of enterprises or industries.

To calculate the benefit under this program, we divided the amount NHCI should have paid for industrial water for the period of investigation by NHCI's total sales of Canadian-manufactured products for the period of investigation. On this basis, we calculated an estimated subsidy of 1.43 percent *ad valorem* for NHCI. Timminco did not receive any benefits from this program.

3. Article 7 Grants from the Quebec Industrial Development Corporation

The Industrial Development Corporation (Societe de Developpement Industriel du Quebec) (SDI) is a crown corporation which acts as an investment corporation and administers development programs on behalf of the Government of Quebec. Established in 1971 under the Quebec Industrial Development Act, the program has been amended several times. Funding for SDI is obtained through the Quebec National Assembly, through the sale of notes, bonds and other securities, and by an endowment established by the

Government of Quebec at the time of SDI's formation.

Acting on special mandates from the Government of Quebec, the SDI provides assistance under Article 7 in the form of loans, loan guarantees, grants, assumptions of costs on loans, and equity investments. This assistance is offered to major projects capable of having a major impact upon Quebec's economy. Article 7 assistance greater than 2.5 million dollars must be approved by the Council of Ministers, and assistance over 5 million dollars becomes a separate budget item under Article 7. To be approved for assistance in this amount, the Council of Ministers must determine that the project to be financed is of special economic importance and value to the province. Funding for this type of assistance does not come from the SDI budget, but comes from the budget of the Council of Ministers. After approval from the Council of Ministers, the Treasury Board will authorize release of the funds. This is done on a project-by-project basis.

NHCI received a grant under this program. The amount of the grant was calculated as a percentage of the cost of environmental protection equipment purchased by NHCI. The money was primarily used by NHCI to pay interest on NHCI's outstanding debt.

To determine whether this program is countervailable, we reviewed the number of recipients which received benefits under Article 7 of SDI. We compared the amount of assistance provided to each of the recipients to the amount of assistance provided to NHCI. While a wide variety of firms did receive Article 7 assistance, we determine that NHCI received a disproportionately large share of assistance under the program. Therefore, we determine the program, with respect to the assistance provided to NHCI, to be countervailable. (We note that the number of recipients, the amount of assistance provided to each recipient, and the exact forms of assistance provided under Article 7 is proprietary. Therefore, a complete analysis of this determination of disproportionality is provided in a separate proprietary memorandum which is part of the official record for these investigations. A public summary of this memorandum is available in our Central Records Unit in the main Commerce Building. See, July 6, 1992 Memorandum for Francis J. Sailer, Deputy Assistant Secretary, regarding "Benefits Provided to Norsk Hydro By the Societe de Developpement Industriel du Quebec (SDI)".)

Our policy with respect to grants is (1) to expense recurring benefits to the year of receipt, and (2) to allocate nonrecurring benefits over the average useful life of assets in the industry, unless the sum of grants provided under a particular program is less than 0.5 percent of a firm's total or export sales (depending on whether the program is a domestic or export subsidy). (See, *e.g.*, Final Affirmative Countervailing Duty Determination; Fresh and Chilled Atlantic Salmon from Norway, 56 FR 7678 (February 25, 1991).) We have determined that the Article 7 assistance received by NHCI is nonrecurring, as it was received based on a one-time authorization of funds. Therefore, we have allocated the benefits over 14 years, the average useful life of assets in the magnesium industry.

We calculated the benefit from the grant received by NHCI using the company's cost for long-term, fixed-rate debt as a discount rate and our declining balance methodology as described in the Department's proposed rules (Countervailing Duties; Notice of Proposed Rulemaking and Request for Public Comments, 54 FR 23366 (May 31, 1989)), and used in prior investigations (see, *e.g.*, Final Affirmative Countervailing Duty Determination; Oil Country Tubular Goods From Canada, 51 FR 15037 (April 22, 1986).) We divided that portion of the benefit allocated to the period of investigation by NHCI's total sales of Canadian-manufactured products and calculated an estimated net subsidy of 6.18 percent *ad valorem* for NHCI. Timminco did not receive any benefits from this program.

4. Preferential Electric Rates

The Risk and Profit Sharing Program is administered by the provincially-owned power company, Hydro-Quebec. Under this program, long-term contracts are signed between Hydro-Quebec and its industrial customers for the provision of electricity. A portion of the rate to be charged under these contracts is based either on the price of the customer's products or the customer's profitability. Therefore, the price paid by each of these customers for electricity varies from year-to-year because of fluctuations in the customer's prices or profits. The Government of Quebec states that the contracts are negotiated with the expectation that over the term of the contract, Hydro-Quebec will earn the full projected revenue that would have been generated under its general rates and programs.

According to Hydro-Quebec, the objective of the Risk and Profit Sharing Program is to strengthen and develop Quebec's industrial sector. Industrial customers which meet the following criteria are eligible to participate in the program:

- A capital-intensive firm;
- A firm requiring a major power demand (at least 5 megawatts);
- A firm where energy costs represent a major factor in production costs (15 percent or more); and
- a firm for which energy rates and availability of electricity in the long term constitute a major factor in the choice of location (in Quebec or elsewhere in the world).

The first contract with features of Risk and Profit Sharing was signed in 1984, although the program was not formalized until 1985. All the remaining contracts were negotiated between 1985 and 1989.

In our preliminary determination, we found the Risk and Profit Sharing Program to be provided to a specific enterprise or industry or group of enterprises or industries because there were only 14 companies with Risk and Profit Sharing contracts while there were over 300 industrial users of electricity in Quebec. Furthermore, we preliminarily found the rates paid by NHCI to be preferential when compared to the weighted-average rate paid by other industrial customers during the review period.

Implicit in the methodology used in the preliminary determination is a finding that electricity contracts that include risk and profit sharing provisions, like those under the Risk and Profit Sharing Program, are preferential, *per se*. This is because preferential rates will be found to exist whenever the rate paid by a Risk and Profit Sharing customer falls below the benchmark rate. Given the structure of these types of contracts, shortfalls are expected, as are higher payments in those years when the customers' profits are high or when the price for the customers' output is high. For this reason, a year-by-year comparison between rates actually paid and the benchmark, as used in the preliminary determination, is not an appropriate measure of the benefits potentially arising from such contracts, which based on information on the record, are not unusual in the electric power industry. On this basis, we have reconsidered our preliminary determination.

As a general matter, the first step the Department takes in analyzing the potential preferential provision of electricity—assuming a finding of specificity—is to compare the price charged with the applicable rate on the power company's non-specific rate schedule. If the amount of electricity purchased by a company is so great that

the rate schedule is not applicable, we will examine whether the price charged is consistent with the power company's standard pricing mechanism applicable to such companies. If the rate charged is consistent with the standard pricing mechanism and the company under investigation is, in all other respects, essentially treated no differently than other industries which purchase comparable amounts of electricity, we would probably not find a countervailable subsidy.

The difficult issue we addressed in the preliminary determination was how to analyze variable rate pricing mechanisms for extremely large purchasers. As mentioned above, we implied in our preliminary determination that variable rate pricing is *per se* preferential.

In the course of suspension agreement negotiations, NHCI stated that it was in the process of negotiating a letter of intent regarding an amendment to the company's power contract. Subsequently, a letter of intent was signed, and we requested that it be placed on the record. In light of the analysis discussed above, if we were to confront a power contract similar to the one envisioned by the letter of intent between NHCI and Hydro-Quebec, we would not find that it was preferential simply on the basis that the rate varied. Rather, we would likely look to see if, over the life of the contract, one could reasonably expect that the price charged would yield a revenue stream consistent with the power company's standard pricing mechanism for purchasers of comparable quantities of electricity. However, we need not resolve this issue now.

For this final determination, we find that we are able to analyze the contract between NHCI and Hydro-Quebec without reaching the issue of whether its risk and profit sharing aspects confer a subsidy on NHCI. This is because, under the terms of this contract, the risk and profit sharing elements, *i.e.*, those where NHCI's electricity rates depend on its profitability, did not occur until after the period of investigation. During the period of investigation, NHCI simply received discounts from an established standard industrial rate schedule. Therefore, for purposes of this final determination, we are limiting our analysis to whether the same discounts were provided to a specific enterprise or industry, or group of enterprises or industries.

During the period 1983–1991, Hydro-Quebec operated a rate discount program for industrial customers. From 1983 through 1986, qualifying customers were able to obtain a 50 percent discount. Between 1987 and 1991, the discount percentage decreased. During the period of investigation, 1990, qualifying customers were able to obtain a 20 percent discount.

We determine that the discount scheme described above was available to and used by a wide variety of industries in Quebec. However, under the terms of its contract, NHCI, and only NHCI, received a 60 percent discount during the period of investigation. Moreover, the electricity rate against which NHCI's discount was applied was lower than the large power rate in force for other industrial customers. Therefore, we determine that NHCI benefitted from the preferential provision of electricity and that the provision of electricity on these terms was limited to a specific enterprise.

To calculate the benefit to NHCI, we compared the actual amount paid for electricity during the period of investigation under its Risk and Profit Sharing contract to the amount it would have paid under the published tariff schedules of Hydro-Quebec, including all discounts which would have been applicable to NHCI under the tariff schedule. We then divided that difference by NHCI's total sales of Canadian-manufactured products and calculated an estimated net subsidy of 14.00 percent *ad valorem* for NHCI. Timminco did not receive any benefits from this program.

B. Programs Determined Not to be Countervailable

We determine that subsidies are not being provided to manufacturers, producers, or exporters in Canada of magnesium under the following programs:

1. Research Conducted by the Institute of Magnesium Technology (IMT)

The IMT was incorporated in 1989, as a private, non-profit company. The creation of the IMT was a joint effort by the Governments of Canada and Quebec and the magnesium industry. Its purpose is both to promote the development of the magnesium processing industry and the promote the growth of world markets for magnesium products. The IMT provides magnesium processors with the expertise and equipment necessary for development work, as well as for the improvement of products and processes. In addition, the IMT also offers development of prototypes and pre-production trials.

Currently, the IMT has 30 members from throughout the world, including the United States. These members are magnesium producers, diecasters, and end-users. U.S. producers of magnesium have been invited to join the IMT. Members pay a yearly fee to the IMT to support the operation of the Institute.

The IMT aims to be self-sustaining by 1995, through membership fees and research contracts, but initial funding was provided by the Governments of Canada and Quebec under the Canada-Quebec Subsidiary Agreement on Scientific and Technological Development. Under this Subsidiary Agreement, both governments provided funds for the construction of a research laboratory and the purchase of equipment for the IMT. In addition, both governments provided funds to the IMT to help it launch its research program.

The Department's practice regarding the countervailability of research and development assistance is that when the results of the research are made available to the public, including competitors in the United States, the assistance does not confer a countervailable benefit. (See, *e.g.*, Final Affirmative Countervailing Duty Determination; Fresh and Chilled Atlantic Salmon from Norway, 56 FR 7678 (February 25, 1991).) Using this standard, we determine that research performed by the IMT is not countervailable, because membership is open to all parties, and these parties can obtain research performed by the Institute on equal terms.

2. Manpower Training Program

This program is administered by the Quebec Ministry for Manpower and Income Security. The Province of Quebec offers this program to individuals for manpower training and retraining. To be eligible for training under this program, an individual has to be more than 16 years old, either employed or in the job market, knowledgeable of the area in which training was chosen, and either employed or seeking employment directly related to the training. During the period of investigation, NHCI received payments under this program for teaching materials and teacher services used in the training of employees and non-employees of the company.

We verified that there are no *de jure* or *de facto* limitations of any kind pertaining to the enterprise or industrial sector employing the worker or potential hiree. Since the program is offered and provided to individuals employed or seeking employment, and to companies providing such training, within a large number and broad range of industrial sectors in Quebec, we determine that this program is not countervailable.

C. Programs Determined Not to be Used

We determine that producers or exporters in Canada of the subject merchandise did not use, or receive benefits under, the following programs during the review period (a description of these programs can be found in the notice of our preliminary determination):

1. *St. Lawrence River Environmental Technology Development Program (ETDP)*
2. *Program for Export Market Development (PEMD)*
3. *The Export Development Corporation (EDC)*
4. *Canada-Quebec Subsidiary Agreement on the Economic Development of the Regions of Quebec*
5. *Opportunities To Stimulate Technology Programs*
6. *Development Assistance Program*
7. *Industrial Feasibility Study Assistance Program*
8. *Export Promotion Assistance Program*
9. *Creation of Scientific Jobs in Industries*
10. *Business Investment Assistance Program*
11. *Business Financing Program*
12. *Research and Innovation Activities Program*
13. *Export Assistance Program*
14. *Energy Technologies Development Program*
15. *Financial Assistance Program for Research, Formation and for the Improvement of the Recycling Industry*
16. *Transportation Research and Development Assistance Program*

Comments

All written comments submitted by the interested parties in this investigation which have not been previously addressed in this notice are addressed below.

Comment 1

The government of Canada and NHCI state that we should determine the federal portion of the funding for the feasibility study provided to NHCI under the Subsidiary Agreement on Industrial Development not countervailable because the Government of Canada funds feasibility studies through a variety of "integrally linked" initiatives. These initiatives include the Advanced Manufacturing Technologies Application Program (AMTAP) and the Strategic Technologies Program (STP), as well as other subsidiary agreements signed with other provinces in Canada.

DOC Position

If the Department determines that two or more programs are integrally linked, it will examine the beneficiaries under all of the programs to determine whether benefits are being provided to a specific enterprise or industry or group of enterprises or industries. In determining whether programs are integrally linked, we examine, among other factors, the administration of the programs, evidence of a government policy to treat industries equally, the purposes of the programs as stated in their enabling legislation, and the manner of the funding of the programs. (See Final Affirmative Countervailing Duty Determination: Live Swine and Fresh, Chilled, and Frozen Pork Products from Canada, 50 FR 25098 (June 15, 1985).)

Although administered by the same agency and financed by that agency's budget, no evidence has been provided to establish that the three programs are integrally linked.

STP provides funding for feasibility studies and for research and development. Individual recipients can receive no more than C$50,000. AMTAP provides funding for qualified firms to engage outside consultants to conduct feasibility studies on advanced manufacturing technologies applicable to their manufacturing operations. AMTAP contributes no more than C$15,000 for a single applicant. The Subsidiary Agreement on Industrial Development (SAID) has a much broader purpose than the funding of feasibility studies and the hiring of outside consultants. SAID also funds the cost of infrastructure development. SAID also provides financial assistance to Quebec companies in the form of repayable or non-repayable contributions, interest rebates and other forms of assistance. Therefore, the purpose of SAID differs from the two other programs cited by respondents. The level of funding is also much higher for SAID approved projects. In addition, applicants for AMTAP must already be engaged in manufacturing or secondary processing in Canada. Therefore, companies seeking to open a manufacturing operation in Canada could not qualify for assistance under AMTAP, while they could qualify for assistance under SAID. For these reasons, we determine that SAID is not integrally linked with AMTAP and STP.

Respondents' statement that the Government of Canada funds feasibility studies under other subsidiary agreements in other provinces does not warrant an examination of whether the programs are integrally linked, unless such agreements exist between the Government of Canada and each of the provinces. There was no evidence presented that demonstrated that subsidiary agreements for the funding of feasibility studies exist with all provinces. Therefore, we conclude that funding provided by the Government of Canada under the Canada-Quebec Subsidiary Agreement on Industrial Development is countervailable.

Comment 2

In calculating any benefit arising from the funding of NHCI's feasibility study, the Government of Quebec claims that the Department has abandoned its practice for measuring benefits from grants and has created a methodology that has no basis in law. The Government of Quebec states that calling the grant a loan was the only apparent way Commerce could countervail the program and that the Department provided no explanation for its divergence from past practice. The Government of Quebec further states that if Commerce's grant methodology were properly applied, the grant from this program must be expensed in the year of receipt.

DOC Position

Our treatment of this reimbursable grant as a rolled-over short-term loan is consistent with past practice. For example, see our calculation of the benefit provided under the Program for Export Development in the Final Affirmative Countervailing Duty Determination; Certain Fresh Atlantic Groundfish from Canada (Groundfish), 51 FR 10041 (March 24, 1986), and the calculation of tax savings under the Export Tax Reserves Program in the Final Affirmative Countervailing Duty Determination; Certain Stainless Steel Cooking Ware From The Republic of Korea (Cooking Ware), 51 FR 42867 (November 26, 1986). In addition, we believe the methodology is appropriate because if the "grant" were treated under the grant methodology but subsequently repaid, the countervailing duties that would be assessed would be much larger than the actual benefit provided to the company. This would be contrary to the statute, to our regulations, and to our GATT obligations.

Comment 3

The Government of Canada and NHCI argue that the Department used the wrong benchmark in calculating the benefit conferred by government funding of NHCI's feasibility study. They state that a fixed long-term interest rate from the year the funding was received should have been used to calculate the benefit from this program.

DOC Position

Our use of a short-term benchmark is consistent with the Department's policy and practice (see Groundfish). A fixed long-term interest rate would only be an

appropriate benchmark if the date of repayment was known with certainty and that date was far enough in the future to enable us to characterize the loan as long-term.

Comment 4

The Governments of Canada and Quebec state that the Department incorrectly found that a benefit was conferred by the grant provided for the feasibility study. They state that since the assistance was paid back during the period of investigation, no subsidy was provided. To support this argument they cite the Final Negative Countervailing Duty Determination: Certain Computer Aided Software Engineering Products From Singapore (Software), 55 FR 12248 (April 2, 1990).

DOC Position

The grant provided to NHCI was provided to the company prior to the period of investigation. As previously stated, NHCI was only obligated to repay the grant if it established a magnesium plant in Quebec. During a portion of the period of investigation, the entire amount of the grant was outstanding. Therefore, NHCI benefitted from the use of the entire grant amount for a portion of the period of investigation. When repayment was required, it was done so on an interest-free basis. Moreover, there were no other fees or costs for which NHCI was responsible as a condition for receiving the grant. Furthermore, we have consistently treated benefits which are potentially repayable as short-term interest-free loans. (See Groundfish and Cooking Ware.) For these reason, we find that this case is distinguishable from the *Software* case. However, since the amount of the assistance was paid back and there is evidence that NHCI cannot use the program again, we did not reflect this subsidy in our calculation of the duty deposit rate.

Comment 5

The Government of Quebec states that the Department's decision to countervail the governmental provision of industrial water contradicts the Department's past policy and practice not to countervail the use of natural resources.

DOC Position

NHCI was exempted from paying its industrial water bills. No other company has received such an exemption. Therefore, we found the program countervailable in accordance with section 771(5) of the Act. There is no precedent to support the Government of Quebec's contention that the provision of water at a preferential rate, which is limited to one company, is not countervailable.

Comment 6

The Government of Quebec and NHCI argue that the Department incorrectly calculated the benefit conferred by NHCI's exemption from the payment of its industrial water bills. They argue that Commerce should look at the actual water consumed by NHCI rather than the projected amount reflected in the water bills issued by Le Societe du Parc Industriel du Centre du Quebec.

DOC Position

At verification, officials of the industrial park stated that all of their water bills are based on forecasted water usage. Absent NHCI's exemption it would have, like all other companies, paid amounts based on projected water usage. The benefit to NHCI is what it would have paid absent the exemption. Therefore, the Department was correct in calculating the subsidy based on projected water usage.

Comment 7

NHCI states that in determining whether assistance provided under Article 7 of SDI is countervailable, the Department should examine the whole universe of SDI funding. In NHCI's view, Article 7 and general assistance under SDI are integrally linked because all SDI funding is provided by the same government pursuant to the same legal authority.

DOC Position

As discussed under Comment 1, in evaluating whether programs are integrally linked, the Department considers, among other factors, the administration of the programs, evidence of a government policy to treat industries equally, the purposes of the programs as stated in their enabling legislation, and the manner of funding the programs. Based on the evidence in these cases, we determine that general SDI assistance and Article 7 assistance are not integrally linked.

Most of the assistance, in monetary terms, provided by the SDI is in the form of venture loans and the creation of Quebec Business Investment Companies (SPEQs). Venture loans are loans where the borrower also pays a "success premium"—either an option to purchase equity in the company or participation in some form of profit sharing. The SPEQs are private companies, whose main operations are to invest capital in small- and medium-size businesses and to enable those who invest to obtain an income tax deduction. While some Article 7 assistance may take these forms, it can also include grants and assumption of interest. Such grants are not provided under general SDI programs, only under Article 7. In addition, in terms of purpose, Article 7 assistance is designed for "important" projects carried out under special mandates from the Government of Quebec, whereas the goals of other SDI-established programs are much broader (business development, export growth, research and development). Therefore, the two programs offer different types of assistance and have been established for different purposes.

Funding for general SDI programs comes from SDI's own budget and the organization aims to achieve self-financing of its operations. A majority of the Article 7 assistance must be approved by the Council of Ministers. In addition, funding for Article 7 assistance approved by the Council of Ministers does not come from the SDI budget, but comes from the Council's own budget. Therefore, the process for approving assistance differs under the general SDI program and Article 7, and the two are funded from different sources.

Finally, even SDI considers its general programs and Article 7 assistance to be separate. Article 7 expenses are segregated from its own expenditures and revenues in SDI's financial statements.

Comment 8

NHCI argues that even if the Department continues to examine Article 7 assistance apart from general SDI assistance, it should not continue the practice adopted in its preliminary determination of looking only at assistance in forms similar to that received by NHCI in determining specificity. Evidence shows that Article 7 assistance, in various forms, went to a wide range of enterprises.

DOC Position

For purposes of these final determinations, we have considered all forms of Article 7 assistance in making our specificity determination. Based on assumptions which are fully supported by the evidence in this record, we have calculated grant equivalents for all the Article 7 projects. While we agree with respondents that Article 7 assistance is available to and used by a wide variety of enterprises and industries, we found that NHCI received a disproportionate share of benefits when compared to other projects funded under Article 7.

Comment 9

Respondents claim that the Department's preliminary determination incorrectly compares the amount provided to NHCI with the amounts provided to other individual projects. If amounts received by various industries are compared, the base metals industry (including NHCI) did not receive a disproportionate share.

DOC Position

Section 771(5)(A) of the Act directs that a countervailable subsidy is conferred when benefits are provided to a specific enterprise or industry, or group of enterprises or industries. Consistent with this, our analysis focused on funding provided to an individual enterprise, NHCI, as opposed to a group of industries, the base metals industries.

Comment 10

Respondents claim that it is the Department's practice to apply a two-step analysis when considering whether the benefits received by individual firms or industries are disproportionate. First, the Department looks across firms to determine whether some have received a larger share of total funds available than others. Second, they claim that the Department examines "vertical proportionality", *i.e.*, the amount of assistance received by individual firms or industries in relation to the size of the project being funded.

DOC Position

In support of their claim that the Department performs a second step in its analysis of proportionality, respondents cite to the Final Affirmative Countervailing Duty Determination: Certain Fresh Cut Flowers From the Netherlands (Dutch Flowers), 52 FR 3301 (Feb. 3, 1987), and the Final Affirmative Countervailing Duty Determination: Cold-Rolled Carbon Steel Flat-Rolled Products from the Republic of Korea (Korean Steel), 49 FR 47284 (Dec. 3, 1984). In both cited cases, we looked to the share of benefits in relation to the share of production. In Dutch Flowers, we found that horticulture received 50 percent of the funding, although it accounted for only 24 percent of the value of agricultural production. In Korean Steel, we compared the amount of loans made to the basic metals sector with the percentage of GNP accounted for by steel production. Thus, neither precedent directs us to look at the amount of assistance as a percentage of project size, as respondents would have us do.

Respondents argue that an assistance-to-investment comparison is appropriate because it is the best measure of the economic distortion caused by the subsidy. As they put it, the greater the share of government investment, the less likely the investment would have occurred. Conversely, the less the government's share, the less likely the government assistance had much effect. However, it can be argued that the effect (and distortion to the economy) of luring a large investment which would employ thousands of workers is much greater than the effect of luring a small investment employing dozens of workers. Therefore, one dollar of assistance, if that is all it takes to attract a magnesium smelter to your area, can be more distortive than one million dollars to a restaurant employing 20 people. In either case, a distortion has occurred.

Therefore, because there is no precedent to support assistance-to-investment analysis and because no conclusive argument has been put forward as to why this standard should be adopted by the Department, we are rejecting this argument.

Comment 11

NHCI states that the funds provided to the company under Article 7 of SDI should be expensed in the year of receipt. It states that all disbursements made under this program were made in connection with interest payments on NHCI's outstanding loans and that the interest payments are recurring annual charges expensed by NHCI. NHCI also states that the assistance provided under the program was an assumption of interest. Such assistance is similar to an interest-free loan; therefore, the benefit should be expensed in the year of receipt.

DOC Position

While the Department will expense recurring benefits such as a five percent payment received every time a product is exported, we look to the nature of the program to determine whether the benefits are recurring, not to the manner in which the funds are used. The authorization of assistance to NHCI was made by the Government of Quebec in a single act. There is no evidence in the record to support the conclusion that Article 7 assistance to Norsk Hydro will recur. Therefore, these benefits are not considered recurring and are allocated over time. Similarily, we do not look to respondent's accounting treatment of the benefits to determine the appropriate allocation period. Therefore, the fact that NHCI's interest expenses are not amortized is irrelevant to our determination of the proper allocation period.

The second part of respondent's argument for expensing SDI benefits is an attempt to liken interest assumption to an interest-free loan, the benefits of which would be expensed at the time of the interest payment. While the interest assumption could be modeled in many ways, our precedent is to treat such assistance as grants. (See our treatment of "Grants for Payment of Principal and Interest on Debentures" in the Final Affirmative Countervailing Duty Determination: New Steel Rail, Except Light Rail, from Canada, 54 FR 31991 (August 3, 1989).)

Comment 12

NHCI states that if the Department decides not to expense the Article 7 grant in the year of receipt, then the Department should allocate the benefits over the useful life of the company's assets as determined by its depreciation schedule, rather than the 14-year amortization schedule used in the preliminary determination. In support of its argument, NHCI cites to *IPSCO, Inc.* v. *United States* (701 F. Supp. 236, 238–240 (CIT 1988)) in which the CIT remanded a determination in which the Department amortized certain grants according to the same IRS schedules used in these investigations.

DOC Position

It is the Department's practice to use the IRS schedules in determining the length of time over which it will allocate benefits provided in the form of nonrecurring grants. (See, e.g., Groundfish.) We believe that use of a firm's estimation of useful life, as reflected in its accounting records, suffers from the fact that a firm may select a useful life for a variety of reasons, such as tax liability or to qualify for a tax subsidy. Thus, to use a firm's accounting useful life could result in drastically different benefit amounts, even though firms might be receiving identical subsidies and might be otherwise identically situated. For these reasons, we continue to believe that the IRS schedule is the most appropriate source with respect to determining the period over which benefits are to be allocated.

We were ordered to use company-specific experience in *IPSCO, Inc.* v. *United States* 701 F. Supp. 236 (CIT 1988), because our regulations did not provide for the use of IRS tables. In partial response to *IPSCO*, we have now issued proposed substantive regulations which would require us to use the IRS tables. See, Notice of Proposed

Rulemaking, 54 FR 23366, 23384 (May 31, 1989).

Comment 13

Timminco requests that the Department exclude its specialized product, MAG–CAL, from this investigation. MAG–CAL is used for the specialized purpose of removing bismuth from lead as part of the lead refining process. Typically, MAG–CAL combines 70 percent magnesium and 30 percent calcium. Timminco is the only company producing this product.

DOC Position

This issue is moot since Timminco is the only company which produces this product and the company received a zero rate. Therefore, Timminco will be excluded from the countervailing duty orders on pure and alloy magnesium from Canada.

Comment 14

Respondents argue that no government action was involved in the sale of electricity to NHCI under the Risk and Profit Sharing Program (RPSP), and where there is no government action there can be no countervailable subsidy.

DOC Position

Hydro-Quebec is wholly-owned by the Government of Quebec. All contracts under the RPSP must be individually approved by the Government of Quebec. Government officials also sit on Hydro-Quebec's Board of Directors. In addition, the utilization of the province's hydro-electric resources plays a central role in the Government of Quebec's development policies. Therefore, we believe it is correct to treat Hydro-Quebec as a government entity capable of conferring subsidies through its actions.

We note that this determination is consistent with the Department's practice. See, Dutch Flowers. In that case, we found that a utility company owned 40 percent by the Government of the Netherlands acted on behalf of the government because the Netherlands Minister of Economic Affairs reserved the right to approve selling prices and contracts.

Comment 15

Respondents argue that the companies which have RPSP contracts do not comprise a specific group of enterprises or industries. They state that participants in the RPSP represent a wide range of industries. They also state that the eligibility criteria for the RPSP were neutral and objective.

DOC Position

For purposes of these final determinations, we have not examined whether RPSP customers comprise a specific enterprise or industry, or group of enterprises or industries. Instead, we examined recipients of non-reimbursable discounts and found that only NHCI received excessive discounts during the period of investigation.

Comment 16

Respondents argue that Hydro-Quebec acted in a commercially reasonable manner in negotiating its electricity contract with NHCI. They also state that at the time of the negotiations with NHCI, Hydro-Quebec was anticipating energy surpluses. Thus, water behind the dams would either be used to generate electricity or be wasted. Respondents state that as long as the sales price of electricity to NHCI exceeded Hydro-Quebec's short-term marginal cost, it was commercially sound to enter into the contract. Respondents further argue that commercially justified price differentials do not constitute preferential pricing. To support this argument they cite Dutch Flowers and the Final Affirmative Countervailing Duty Determination and Countervailing Duty Order: Certain Steel Wire Nails from New Zealand, 52 FR 37196 (Oct. 5, 1987).

DOC Position

In these final determinations we do not reach the issue of whether the RPSP contract negotiated between NHCI and Hydro-Quebec is preferential because we looked only at the non-reimbursable discounts received by NHCI during the period of investigation. However, respondents' arguments are equally applicable to those discounts as they claim that the marginal cost of providing electricity at the time of the discounts was near zero.

Section 771(5)(A) defines as a subsidy the preferential provision of goods and services (when provided to a specific enterprise or industry, or group of enterprises or industries). The Department has consistently taken the position that preference results when different prices are charged to different customers. Regardless of whether price discrimination is considered commercially reasonable in any given circumstance, it still constitutes the preferential provision of the good or service.

The Department's definition of preference does not require that all users pay identical prices. In the case of electricity, where users can be categorized according to different use characteristics, a finding of no preference requires that similarly situated users pay the same rate. In these investigations, no evidence was provided to demonstrate that all customers similar to NHCI received discounts of the same magnitude.

The position taken by Commerce in Dutch Flowers supports this position. In Dutch Flowers, natural gas prices were broken down into five categories or zones, designated "a" through "e". Zone "a" users were small gas consumers, while zone "e" users were the largest consumers of natural gas. Zone "a" users paid the highest price, while zone "e" users paid the lowest. The price charged for natural gas within each of the zones was based on world market prices for light and heavy fuel oil with an adjustment based on the readiness of various buyers to switch to, and maintain usage of, the substitute fuel. Under a separate contract negotiated with the utility company, the greenhouse growers paid the rates applicable to zone "d" users. Individually, these growers would have fallen in zones "a", "b" or "c". Their collective consumption would have made them eligible for the lowest rates provided in zone "e".

Thus, in Dutch Flowers, a consistent rate-making "philosophy" was applied to each customer category—each group was charged the rate necessary to prevent them from switching to alternative fuel sources. Because this same philosophy was applied to each group, the Department was able to find that no preference was exhibited towards users in any group.

In these investigations, Hydro-Quebec offered non-reimbursable discounts to a large group of industrial users in order to sell its surplus electricity. The same discount formula applied to all, except NHCI which received a 60 percent discount.

Comment 17

Respondents argue that fixed-discount provisions are a normal commercial practice and an integral part of RPSP-type contracts.

DOC Position

See Comment 18, below, with respect to fixed discounts generally. We disagree with respondents' statement that such discounts are common in RPSP-type contracts. Respondents have provided no evidence to support this statement. Of the 14 RPSP contracts negotiated by Hydro-Quebec, only three incorporated these types of discounts. Therefore, the practice is not even a common practice with Hydro-Quebec.

Comment 18

The Government of Quebec states, that during the period of investigation, NHCI benefitted from a rate discount widely advertised and generally available. The Government of Quebec states that it was that particular discount, not a feature of the Risk and Profit Sharing Program, that was countervailed in the preliminary determination. They further state that NHCI was enrolled in the surplus power program. The Government of Quebec certifies that for the period of investigation, NHCI's rate for electricity was not based on a formula for a group of 14 companies. Instead, they argue, it was one of a number of companies that received discounts for increasing electricity consumption. The Government of Quebec states that these companies do not constitute a specific group of enterprises or industries.

DOC Position

The Government of Quebec's assertion is not supported by evidence on the administrative record. The program referred to by the Government of Quebec was a 1983 industrial discount program for companies which expaned capacity and, thus, increased electricity usage. According to information collected at verification, the Department found that NHCI did not apply for, was not enrolled in, nor was it even eligible to participate in the program. The fact that NHCI received special discounts not available to other firms supports the Department's determination that NHCI received preferential benefits.

Comment 19

Reynolds Metals Company states that in order to determine whether the NHCI contract provides a preferential benefit to the company, the Department must analyze the prices to be paid by NHCI over the life of the contract.

DOC Position

The methodology employed in our preliminary determination implicitly required that the benchmark rate be obtained in each year of the life of NHCI's contract. We agree with Reynolds that this is not necessary.

Verification

In accordance with section 776(b) of the Act, we verified the information used in making our final determination. We followed standard verification procedures, including meeting with government and company officials, examination of relevant accounting records, and examination of original source documents. Our verification results are outlined in detail in the public versions of the verification reports, which are on file in the Central Records Unit (Room B-099) of the Main Commerce Building.

Suspension of Liquidation

In accordance with our affirmative preliminary determination, we instructed the U.S. Customs Service to suspend liquidation of all entries of pure and alloy magnesium from Canada which were entered, or withdrawn from warehouse, for consumption, on or after December 6, 1991, the date of publication of our preliminary determination in the **Federal Register**. These final countervailing duty determinations were extended to coincide with the final antidumping duty determinations on pure magnesium and alloy magnesium from Canada and Norway, pursuant to section 606 of the Trade and Tariff Act of 1984 (section 705(a)(1) of the Act).

Under article 5, paragraph 3 of the Subsidies Code, provisional measures cannot be imposed for more than 120 days without final affirmative determinations of subsidization and injury. Therefore, we instructed the U.S. Customs Service to discontinue the suspension of liquidation on the subject merchandise entered on or after April 4, 1992, but to continue the suspension of liquidation of all entries, or withdrawals from warehouse, for consumption of the subject merchandise entered between December 6, 1991 and April 3, 1992. We will reinstate suspension of liquidation under section 703(d) of the Act, if the International Trade Commission (ITC) issues a final affirmative injury determination, and will require a cash deposit equal to 21.61 percent *ad valorem* for all entries of magnesium produced and exported by Norsk Hydro Canada Inc., and all other manufacturers, producers and exporters in Canada of pure and alloy magnesium, except for Timminco which, because its estimated net subsidy is zero, is exempt from the suspension of liquidation.

ITC Notification

In accordance with section 705(d) of the Act, we will notify the ITC of our determination. In addition, we are making available to the ITC all nonprivileged and nonproprietary information relating to these investigations. We will allow the ITC access to all privileged and business proprietary information in our files provided the ITC confirms that it will not disclose such information, either publicly or under an administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

If the ITC determines that material injury, or the threat of material injury, does not exist, these proceedings will be terminated and all estimated duties deposited or securities posted as a result of the suspension of liquidation will be refunded or cancelled. If, however, the ITC determines that such injury does exist, we will issue a countervailing duty order, directing Customs officers to assess countervailing duties on entries of pure magnesium and alloy magnesium from Canada entered, or withdrawn from warehouse, for consumption, as described in the "Suspension of Liquidation" section of this notice.

This determination is published pursuant to Section 705(d) of the Act (19 U.S.C. 1671d(d)).

Dated: July 6, 1992.

Alan M. Dunn,

Assistant Secretary for Import Administration.

[FR Doc. 92-16382 Filed 7-10-92; 8:45 a.m.]
BILLING CODE 3510-DS-M

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-529 (Final)]

Magnesium From Norway

AGENCY: United States International Trade Commission.

ACTION: Termination of investigation.

SUMMARY: On July 15, 1992, the U.S. Department of Commerce made a negative final determination of sales at less than fair value on pure magnesium from Norway. Commerce also rescinded its investigation of alloy magnesium from Norway. Accordingly, pursuant to § 207.40(a) of the Commission's Rules of Practice and Procedure (19 CFR 207.40(a)), the Commission's antidumping investigation concerning magnesium from Norway (investigation No. 731-TA-529 (Final)) is terminated.

EFFECTIVE DATE: July 15, 1992.

FOR FURTHER INFORMATION CONTACT: Mary Messer (202-205-3193), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained 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.

AUTHORITY: This investigation is being terminated under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 201.10 of the Commission's rules (19 CFR 201.10).

By order of the Commission.

Issued: July 24, 1992.

Paul R. Bardos,

Acting Secretary.

[FR Doc. 92-18329 Filed 8-3-92; 8:45 am]

BILLING CODE 7020-02-M

Appendix B

List of Participants in the Commission's Hearing

CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the U.S. International Trade Commission's hearing:

Subject: MAGNESIUM FROM CANADA

Invs. Nos.: 701-TA-309 (Final) and 731-TA-528 (Final)

Date and Time: July 14, 1992 - 9:30 a.m.

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

In support of the imposition of countervailing and antidumping duties:

Magnesium Corporation of America (Magcorp)
Salt Lake City, UT

Donald H. Wilkinson, President, Magcorp

Howard Kaplan, Vice President, Sales & Marketing, Magcorp

Lee R. Brown, Vice President, Human Resources, Public & Government Affairs, Magcorp

Kenneth R. Button, Vice President, Economic Consulting Services, Inc.

In opposition to the imposition of countervailing and antidumping duties:

Dewey Ballantine
Washington, DC
On behalf of--

Norsk Hydro Canada Inc.
Norsk Hydro a.s.

Jean-Claude Raimondi, President, Norsk Hydro Canada Inc.

Darryl Albright, Manager of Market Development, Norsk Hydro

James M. Walters, Vice President, Marketing and Sales, Norsk Hydro

George B. Cobel, Marketing Associate, Omni Tech International, Ltd.

Charles Meacham, Purchasing Director, Reynolds Metals Company

Jean Michaud, Manager, Metal Trading, Alcan Aluminum Limited

Michael H. Stein)
Carol A. Mitchell) --OF COUNSEL

--Continued--

In opposition to the imposition of countervailing and antidumping duties--Continued

Howrey & Simon
Washington, DC
On behalf of--

Gouvernement du Quebec

Michael M. Avedesian, President and Chief Operating Officer, Institute of Magnesium Technology, Inc.

Seth Kaplan, Economic Consultant, Trade Resources Co.

Barbara Epstein, Senior Vice President, Capital Economics

Elliot J. Feldman--OF COUNSEL

Appendix C

Summary Data on Apparent U.S. Consumption, Imports, and the Performance of the Domestic Industry

Table C-1
Pure magnesium: Summary data concerning the U.S. market, 1989-91[1]

	Units of measure[2]					
	Reported data			*Period changes*		
Item	*1989*	*1990*	*1991*	*1989-91*	*1989-90*	*1990-91*
*	*	*	*	*	*	*

[1] Data presented include that of ultra-pure and commodity-grade pure magnesium.
[2] Quantities in 1,000 metric tons; values in 1,000 dollars; unit values and unit labor costs in dollars per metric ton; period changes in percent, except as noted.

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

Table C-2
Alloy magnesium: Summary data concerning the U.S. market, 1989-91

	Units of measure[1]					
	Reported data			*Period changes*		
Item	*1989*	*1990*	*1991*	*1989-91*	*1989-90*	*1990-91*
•	•	•	•	•	•	•

[1] Quantities in 1,000 metric tons; values in 1,000 dollars; unit values and unit labor costs in dollars per metric ton; period changes in percent, except as noted.

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

Table C-3
Pure and alloy magnesium: Summary data concerning the U.S. market, 1989-91

	Units of measure[1]					
	Reported data			*Period changes*		
Item	*1989*	*1990*	*1991*	*1989-91*	*1989-90*	*1990-91*
U.S. consumption:						
Quantity	106,125	106,161	102,497	-3.4	(2)	-3.5
Producers' share[3]	91.9	83.1	77.3	-15.9	-9.6	-7.0
Importers' share:						
Norsk Hydro Canada[3]	***	***	***	***	***	***
Other sources[3]	***	***	***	***	***	***
Total[3]	8.1	16.9	22.7	180.2	108.6	34.3
Value	352,039	336,422	274,391	-22.1	-4.4	-18.4
Producers' share[3]	91.1	82.5	76.6	-15.9	-9.4	-7.2
Importers' share:						
Norsk Hydro Canada[3]	***	***	***	***	***	***
Other sources[3]	***	***	***	***	***	***
Total[3]	8.9	17.5	23.4	162.9	96.6	33.7
U.S. imports:[4]						
From Norsk Hydro Canada						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Ending inventories (qty)	***	***	***	***	***	***
From all other sources:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Total U.S. imports:[4]						
Quantity	8,599	17,977	23,304	171.0	109.0	29.6
Value	31,181	58,892	64,246	106.0	88.9	9.1
Unit value	$1.64	$1.49	$1.25	-23.8	-9.1	-16.1

Table continued. See footnotes at end of table.

Table C-3—*continued*
Pure and alloy magnesium: Summary data concerning the U.S. market, 1989-91

	Units of measure[1]					
	Reported data			*Period changes*		
Item	*1989*	*1990*	*1991*	*1989-91*	*1989-90*	*1990-91*
U.S. producers'—						
Average capacity	166,474	166,474	166,474	0.0	0.0	0.0
Production	146,675	137,462	129,152	-11.9	-6.3	-6.0
Capacity utilization[3]	88.1	82.6	77.6	-11.9	-5.5	-6.1
Shipments:						
U.S. market shipments:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
U.S. company transfers:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Export shipments:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Ratio to shipments[5]	***	***	***	***	***	***
Ending inventories (qty)	20,825	24,830	27,487	32.0	19.2	10.7
Ratio to shipments[5]	***	***	***	***	***	***
Production workers	1,822	1,746	1,660	-8.9	-4.2	-4.9
Hours worked (1,000)	4,016	3,839	3,628	-9.7	-4.4	-5.5
Total compensation paid	75,301	78,025	74,055	-1.7	3.6	-5.1
Hourly compensation paid	$18.75	$20.32	$20.41	8.9	8.4	0.4
Productivity[6]	36.5	35.8	35.6	-2.5	-1.9	-0.6
Unit labor costs	$513.39	$567.61	$573.39	11.7	10.6	1.0

Table continued. See footnotes at end of table.

Table C-3—*continued*
Pure and alloy magnesium: Summary data concerning the U.S. market, 1989-91

	Units of measure[1]					
	Reported data			*Period changes*		
Item	*1989*	*1990*	*1991*	*1989-91*	*1989-90*	*1990-91*
Net sales	***	***	***	***	***	***
Ratio of COGS to sales[3]	***	***	***	***	***	***
Operating income (OI)	***	***	***	***	***	***
Ratio of OI to sales[3]	***	***	***	***	***	***

[1] Quantities in 1,000 metric tons; values in 1,000 dollars; unit values and unit labor costs in dollars per metric ton; period changes in percent, except as noted.
[2] Less than 0.05 percent.
[3] In percent; figures shown for period changes are percentage-point changes.
[4] Data presented are U.S. shipments of imports for Norsk Hydro Canada and Norsk Hydro Norway and U.S. imports for Timminco and countries other than Canada and Norway.
[5] Ratio (in percent based on quantity) to total shipments (U.S. market shipments plus company transfers plus export shipments); figures shown for period changes are percentage-point changes.
[6] Metric tons per 1,000 hours.

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

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission. [1]

Table C-4
Pure and alloy magnesium: Norsk Hydro Canada's U.S. shipments of imports of pure magnesium as a share of apparent U.S. consumption of pure and alloy magnesium and Norsk Hydro Canada's U.S. shipments of imports of alloy magnesium as a share of apparent U.S. consumption of pure and alloy magnesium, 1989-91

Item	*1989*	*1990*	*1991*
• • • • • • •			

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

Appendix D

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 imports of primary magnesium from Canada and Norway on existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), growth, investment, and ability to raise capital. ***. The responses of *** are as follows:

Response of U.S. producers to the following questions:

1. Since January 1, 1989, has your firm experienced any actual negative effects on its 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, as a result of imports of primary magnesium from Canada and Norway?

   * * * * * * *

2. Does your firm anticipate any negative impact of imports of primary magnesium from Canada and Norway?

   * * * * * * *

3. Has the scale of capital investments undertaken been influenced by the presence of imports of primary magnesium from Canada and Norway?

   * * * * * * *