

Mineral Industry Surveys

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MAGNESIUM IN THE SECOND QUARTER 1998

U.S. primary magnesium production in the second quarter of 1998 was 29,500 metric tons, 9% lower than production in the first quarter, according to the U.S. Geological Survey. Producers' shipments in the second quarter of 1998 were 28,600 tons, and inventories continued to increase to 17,000 tons.

Magnesium exports through May were about 11% higher than those in the same period of 1997. Imports of magnesium were 43% higher than those in the first 5 months of 1997.

Quoted prices of primary magnesium continued to decline. Prices are shown in the following table.

	Units	Beginning of quarter	End of quarter
Metals Week U.S. spot Western	Dollars per pound	\$1.60-\$1.65	\$1.55-\$1.65
Metals Week U.S. spot dealer import	do.	1.42-1.49	1.39-1.43
Metals Week European free market	Dollars per metric ton	2,700-2,800	2,400-2,550
Metal Bulletin free market	do.	2,400-2,600	2,000-2,400

In a preliminary ruling from the Department of Commerce, the International Trade Administration (ITA) set the antidumping duties for pure magnesium from Norsk Hydro Canada Inc. at 0% ad valorem for the period August 1, 1996 to July 31, 1997. This is the third review in which the rate has been established at 0%. However, the ITA does not intend to revoke the antidumping order (which can be done after three consecutive 0% determinations) because it can not be assured that Norsk Hydro will not dump in the future (U.S. Department of Commerce, 1998c).

The ITA also issued preliminary results of the fifth countervailing duty review for pure and alloy magnesium from Canada. For the calendar year 1996, the preliminary determination for magnesium from Norsk Hydro was 2.78% ad valorem. (U.S. Department of Commerce, 1998b).

On April 28, the Court of International Trade (CIT) issued a remand order to the International Trade Commission (ITC) of its final antidumping investigation of magnesium from Ukraine. The Court ordered the ITC to reconsider its final determination issued in May 1995, in which rates ranged from 79.87% to 104.27% ad valorem depending on the importer. In the remand, the ITC is instructed to take into account the substitutability of fairly traded Russian imports and the increase in market share of those imports

during the period of review. As a result of this remand, ITC is reopening the antidumping investigation (U.S. International Trade Commission, 1998). In a vote in June, the ITC said that the United States was not injured by magnesium imported from Ukraine, reversing the 1995 decision. The ITC findings were sent to the CIT in June, and the CIT is expected to make a final decision in September (Platt's Metals Week, 1998f).

In May, the ITA published a notice that interested parties may request an administrative review of antidumping duties assessed on pure magnesium from China, Russia, and Ukraine for the period May 1, 1997, to April 30, 1998. Requests for reviews must be filed by May 31 (U.S. Department of Commerce, 1998a).

The European Commission imposed provisional antidumping duties on magnesium imported from China, effective May 15. The EC has set a floor price of 2,797 ecu's per ton (about \$3,100 per ton). The duty will be the difference between the floor price and the c.i.f. value of magnesium imported under tariff codes 8104.11.00 and 8104.19.00. With this action, the EC has set antidumping duties for magnesium imported from China, Russia, and Ukraine (Metal Bulletin, 1998b). China also has imposed a minimum floor price for magnesium for export of \$2,500 per ton, f.o.b. China. This price was implemented on a trial basis in May before officials set up an export

coordinating committee in 1999 (Platt's Metals Week, 1998a).

Predictions of strong growth in magnesium usage in automotive applications spurred several announcements of new magnesium projects around the world. In Australia, Crest Resources Australia NL announced plans to construct a 90,000-ton-per-year magnesium plant near Burnie, Tasmania by 2003. A preliminary study on the plant is being carried out by BHP Engineering and Hatch Associates Ltd. of Canada. Magnesite for the plant will be mined from the nearby Arthur Lyons River deposit, which is estimated to contain about 29 million tons of magnesite, with an average grade of 40% magnesium. Capital cost for the project is projected to be A\$720 million, with an operating cost of about 90¢ per pound. The magnesium recovery process will use Ukrainian technology that has been demonstrated at Dead Sea Magnesium's plant in Israel (Metal Bulletin, 1998c).

In Canada, several companies are investigating new projects to recover magnesium from asbestos tailings. Minroc Mines Inc. plans to begin a \$400 to \$800 million magnesium project in northern British Columbia at the Cassiar Chrysotile mine. The company has identified significant concentrations of magnesium silicate in the mine tailings. The plan is in the early stages of investigation (Platt's Metals Week, 1998c). In addition GeoTech Surveys Inc. submitted a proposal to the Newfoundland government on behalf of Canadian Magnesium Corp. to extract magnesium from an asbestos tailings pile at the Baie Verte mine. If the proposal is approved, Canadian Magnesium will begin a feasibility study (Platt's Metals Week, 1998d). Interest in recovering magnesium from asbestos tailings has been heightened by the development of the Magnola project, which broke ground for construction on April 15.

In the Netherlands, the Antheus Magnesium Development Programme Delfzijl announced that it would develop a 40,000- to 50,000-ton-per-year magnesium plant at an estimated capital cost of \$400 million. The company would use magnesium chloride brines from the nearby Nedmag magnesia operation as a feedstock. The company is looking for financing to develop the project, and several technologies for magnesium production are being evaluated (Metal Bulletin, 1998e).

Congo (Brazzaville)'s council of ministers ratified Magnesium Alloy Corp.'s exploration agreement in May, which confirmed the company's right to develop the magnesium salt resources that underlie the Makola and Youbi licenses. With this agreement, Magnesium Alloy plans to begin the first phase of a prefeasibility study that should be completed by early 1999. If the study results are positive, a full feasibility study will be conducted over a 1-year period. Costs for the two studies are estimated to be \$10 million (Metal Bulletin, 1998d).

In April, Australian Magnesium Corp., who is developing a 90,000-ton-per-year magnesium plant in Australia, also became a shareholder in the Iceland Magnesium Co. with a 40% stake. Iceland Magnesium almost has completed a feasibility study for a 50,000-ton-per-year magnesium plant near Reykjanes. Although a decision about plant construction was expected by yearend 1997, the company wanted to find a major shareholder (which it has done with Australian Magnesium) and decide on which production technology

to use—one developed by the Australians or currently used Ukrainian technology (Metal Bulletin, 1998a).

Timminco of Canada reportedly entered into an agreement with Dow Chemical Co. to acquire Dow's fabricated/extruded products business unit in Aurora, CO, for an undisclosed sum. The transaction is expected to be completed by the third quarter, contingent on regulatory approval. Under terms of the agreement Timminco will acquire raw materials and finished goods inventory as well as some trademarks and intellectual property (Platt's Metals Week, 1998e).

The EC cleared Teksid SpA, a subsidiary of Italy's Fiat Group and a subsidiary of Norsk Hydro A/S to acquire the remaining shares of the Canadian firm Meridian Technologies Ltd. Meridian produces aluminum and magnesium diecastings, primarily for the auto industry (Platt's Metals Week, 1998b).

Chrysler Corp. announced that it would use magnesium alloy cam covers on the new 4.7-liter, V-8 truck engines that are to be installed in the 1999 models of its Grand Cherokees. Magnesium covers, weighing about 1.4 kilograms per engine, will be produced from alloy AZ91 by Diemakers Inc., Monroe City, MO. The total quantity of magnesium used for the new covers is estimated to be 600 tons annually (Wrigley, 1998).

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TABLE 1
U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM 1/

(Metric tons)

	1997	1998				
		Jan.-Feb.	March	April	May	Jan.-May
Imports:						
Metal	19,700	5,790	3,010	2,410	942	12,100
Waste and scrap	3,990	1,120	551	629	531	2,830
Alloys (magnesium content)	41,000	7,240	3,720	4,060	3,060	18,100
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	509	240	8	12	8	268
Total	65,100	14,400	7,290	7,110	4,540	33,300
Exports:						
Metal	17,100	1,920	1,090	2,030	1,510	6,550
Waste and scrap	11,200	2,070	1,150	1,060	960	5,230
Alloys (gross weight)	9,180	1,830	1,450	1,330	1,200	5,820
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	2,960	170	122	118	131	541
Total	40,500	5,990	3,810	4,530	3,810	18,100

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

