Mineral Industry Surveys

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MAGNESIUM IN THE THIRD QUARTER 2010

U.S. magnesium exports for the first 9 months of 2010 were 8% lower than exports in the corresponding period of 2009. Magnesium imports for consumption in the first 9 months of 2010 were 8% higher than those in the same period of 2009. Israel (87%) was the principal source of imported magnesium metal. Taiwan (25%), Israel (21%), and China (11%) were the main sources of alloy imports.

Quoted magnesium prices are shown in the table below. Press reports indicated that although U.S. magnesium consumption had diminished from the level before the economic recession, domestic supplies were barely sufficient to meet this consumption level, which led to stable prices in the third quarter of 2010 (Metal-Pages, 2010). Prices in China and Europe increased slightly in response to decreased production and increased prices for ferrosilicon in China. Contract negotiations for 2001 began in October, with reports that 99.8%-pure magnesium was offered at $2.20 to $2.30 per pound (McBeth, 2010).

In October, the U.S. Department of Commerce, International Trade Administration (ITA), published the final results of its antidumping duty review of magnesium alloy imports from China. The ITA determined that for April 1, 2008, through March 31, 2009, for Tianjin Magnesium International Co. Ltd., the duty was 0% ad valorem, and for other exporters from China, the rate would be 141.49% ad valorem or an individual rate that had been established for a specific company in an earlier review (U.S. Department of Commerce, International Trade Administration, 2010a).

In September, the ITA published the final results of its antidumping duty review of magnesium imports from Russia for April 1, 2008, through March 31, 2009. For PSC VSMPO-Avisma Corp., the ITA set a duty of 0% ad valorem. Because Solikamsk Magnesium Works did not ship magnesium into the United States in the period of review, its duty was set at the rate that was determined the last time the company had U.S. sales or shipments (U.S. Department of Commerce, International Trade Administration, 2010b).

In November, U.S. Magnesium LLC appealed the U.S. Environmental Protection Agency's (EPA) decision to declare its magnesium production facility in Rowley, UT, as a Superfund site. The company argued that the EPA broke its own rules by designating the plant as a Superfund site. The company also contended that although there are four sources of pollution on the site, they cannot be aggregated to show a higher waste output, and that two birds listed as affected by the plant's operation are not threatened or endangered. Because the EPA ruling that U.S. Magnesium's facility is a Superfund site is considered a Federal regulation, the appeal went directly to the Court of Appeals for the District of Columbia (Burr, 2010).

As part of its 5-year plan, China's Government would close currently producing magnesium plants with a production capacity of less than 15,000 metric tons per year (t/yr) and require that all new plants have a production capacity of at least 20,000 t/yr. The new rules were scheduled to be implemented in 2011. In addition, the new regulations require magnesium plants to consume a maximum of 5.5 to 6.0 metric tons (t) of coal per ton of magnesium produced; some plants have consumed as much as 11 to 18 t of coal per ton of magnesium. The goals of the new regulations were to eliminate small plants that produce substandard (less than 99.9%-pure) magnesium and to reduce emissions. Through September 2010, China produced about 685,000 t of magnesium, 85% more than that during the same

	Units	Beginning of quarter	End of quarter
Platts Metals Week U.S. spot Western	Dollars per pound	$2.55-$2.70	$2.55-$2.70
Platts Metals Week U.S. spot dealer import	do.	2.30-2.50	2.30-2.50
Platts Metals Week European free market	Dollars per metric ton	2,800-2,925	3,150-3,250
Platts Metals Week China	do.	2,720-2,750	2,850-2,950

do. Ditto.

period of 2009 (Leung and Yee, 2010).

ESM Group Inc. (Amherst, NY) announced that it would construct an atomized magnesium plant at its Saxonburg, PA, operations by the second quarter of 2011. Although the company did not specify the plant's expected production capacity, magnesium powder produced at the plant would be targeted to defense markets. Although the former president of ESM had been indicted for importing substandard magnesium powder from China into the United States, the company itself was not indicted. Hart Metals Inc. (a subsidiary of United Kingdom-based Magnesium Elektron Ltd.) operated the only other magnesium powder plant in the United States (Tamaqua, PA) that could provide magnesium powder for military applications, such as missile countermeasure flares. In February, Hart had received $1.6 million in Federal funding to develop new high-performance magnesium alloy powders (Riley, 2010a).

In October, a fire at Magnesium Elektron's Madison, IL, magnesium sheet plant destroyed one of the plant's reheating furnaces, but because the plant was operating at less than its production capacity, the fire did not affect the company's ability to supply its customers. The plant produced magnesium sheet for aerospace and commercial applications (Riley, 2010b).

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TABLE 1

U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM[1]

(Metric tons)

		2010				
	2009	January-June	July	August	September	January-September
Imports:						
Metal	21,400	8,830	1,630	1,710	1,520	13,700
Waste and scrap	20,900	10,600	1,620	1,870	2,030	16,100
Alloys (magnesium content)	4,790	4,890	1,340	1,170	1,160	8,560
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	204	247	179	66	85	577
Total	47,300	24,500	4,770	4,820	4,800	38,900
Exports:						
Metal	6,120	3,270	297	547	287	4,400
Waste and scrap	2,280	132	104	133	30	399
Alloys (gross weight)	9,190	4,400	390	334	443	5,560
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	2,050	1,100	142	127	192	1,560
Total	19,600	8,900	933	1,140	952	11,900

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.