Lack of Smelter Capacity is a Symptom of What Ails Our Nation

by David F. Briggs

During the late 1970s, sixteen domestic copper smelters treated sulfide concentrates derived from our nation's mines. Today, only three remain in operation; Kennecott's Garfield smelter near Salt Lake City, Utah, ASARCO's Hayden smelter at Winkelman, Arizona and Freeport-McMoRan's Miami smelter near Globe, Arizona.

Kennecott's Garfield Smelter near Salt Lake City, Utah
(Photo provided courtesy of David Schumacher)

ASARCO's Hayden Smelter at Winkelman, Arizona (Photo taken by David Briggs)

Freeport-McMoRan's Miami Smelter near Globe, Arizona (Photo taken by David Briggs)

Over the last four decades, the following domestic copper smelters have been closed: Superior (1971), Anaconda (1980), Ray (1982), McGill (1983), Morenci (1984), Ajo (1985), Tacoma (1985),

Douglas (1987), Copperhill (1987), White Pine (1995), Hidalgo (1999), San Manuel (1999), El Paso (1999) and Hurley (2005).

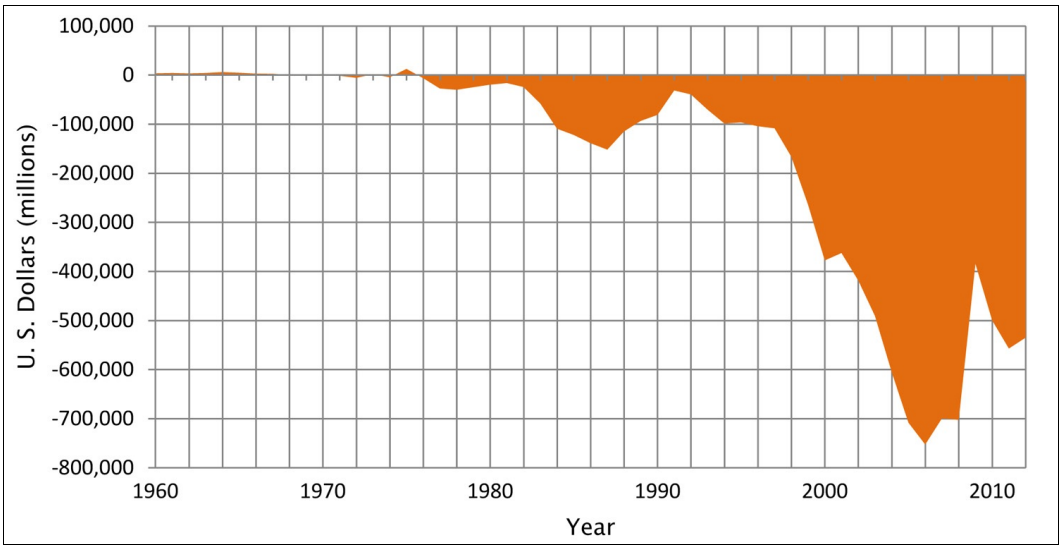
San Manuel Smelter near Tucson, Arizona Closed in 1999 (Photo by David Briggs)

Reasons for these closures are varied. Some of these facilities ceased operations as a result of the closure of the mines they served. The introduction of large scale dump leach-solvent extraction-electrowinning facilities at some copper operations eliminated the need for the capacity provided by other smelters. However, the primary reason for their closure was the high cost of operating and maintaining these facilities in compliance with ever changing and more stringent environmental regulations, which made it impossible for them to compete with foreign operations.

These closures have resulted in a significant loss of our domestic smelter capacity, which has fallen to a point where America no longer has the capacity to treat all of the copper concentrates produced at our nation's mines. Concentrates from many operations like Robinson, Pinto Valley and Butte are treated at foreign smelters. Even our nation's leading copper producer, Freeport-McMoRan no longer has domestic smelter capacity to treat all of the concentrates produced from its U. S. mines.

This loss of capacity is not unique to the copper industry. The production capacity of much of America's extractive and manufacturing sectors has also significantly declined over the last several decades.

The U. S. balance of trade data, presented below, show the value of exports minus the value of imports over last five decades. A negative balance of trade is a trade deficit, while a positive balance of trade is a trade surplus.



U. S. Balance of Trade from 1960-2012 (Source: U. S. Bureau of Census)

Our nation's rapidly expanding trade deficits reflects our increased reliance on foreign imports since the mid-1990s. Like a victim with a severed artery, our nation is hemorrhaging hundreds of billions of dollars every year through the importation of goods, which we were once able to produce ourselves. Chronically high unemployment rates we are now experiencing are a by-product of these high trade deficits, because they rob us of the financial resources we require to invest in our economic development.

America's economic future depends on our ability to restore our nation's industrial base through the development of environmentally sound projects. That's why new mining projects like Rosemont Copper are needed. Let's put Arizonan's back to work, producing an American-made product that will help provide the wealth required to ensure our future economic prosperity.

Disclaimer: David F. Briggs is a resident of Pima county and a geologist, who has intermittently worked on the Rosemont Copper project since 2006. The opinions expressed in this article are those of the author and do not necessarily reflect those of Rosemont Copper.

Originally published by Mining and You in the Tucson Citizen on November 24, 2013.