Written by Nick Sanders Wednesday, 19 August 2020 00:00

Rare earth metals. Stuff that is critical to 21st century technology that most people don't talk about. Stuff like ytterbium, dysprosium, and other exotic minerals that most people can't even pronounce. But they don't talk about it not because they can't pronounce the words, but because they don't like to admit that the Chinese control the world's production.

In other words, if the Chinese decide to stop exports of rare earth metals, the market for such commercial items as smart phones and digital cameras and computer disks will be negatively impacted. Not to mention LED lights and flat screen televisions. In other words, most of the current electronic "gadgets" that Americans have come to rely upon basically disappear.

current electronic "gadgets" that Americans have come to rely upon basically disappear.
And the US defense industry will be negatively impacted as well.
Defense items at risk include:
- night-vision goggles (lanthanum)
laser range-finders, guidance systems, communication systems (neodymium)
- high-temperature magnets, precision guided munitions, stealth technology (samarium)
Thus, if the Chinese decide to restrict exports (as they did in 2010) or cut them off entirely, it puts the national security posture of the United States at risk.

All of the above is not new news. It's been known for at least a decade. For example, in 2010 we devoted an entire **article** to the topic, discussing a then-recent GAO report on the situation.

Then, in the Summer of 2012, the American Bar Association

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an article of mine in its Public Contract Law Journal, in which I took issue with the thoughts of another author in a previous PCLJ article. While I took issue with the author's proposed strategies that might be employed by the Federal government, I had no problem agreeing with his basic thesis that the government should do something

to address the unpalatable fact that China controlled (and still controls) the market for rare earth metals.

Since then, not much has changed. There was a company (called MolyCorp) that tried to develop a domestic source for rare earth metals via use of the Mountain Pass mine (located in California). After a series of management missteps (that cost me thousands of dollars), the company went bankrupt in 2015. In 2017, the mine was acquired by "MP Minerals." According to Wikipedia, "MP Materials is majority owned by Chicago hedge fund JHL Capital Group and New York's QVT Financial LP, while China's Shenghe Resources Holding Co. Ltd. holds a 9.9% stake. They acquired Mountain Pass in July 2017 with the goal of reviving America's rare earth industry." In July, 2020, MP Materials merged with Fortress Value Acquisition Corp. (a private equity "blank check" company with multiple investors, including at least one registered in the Cayman Islands).

Thus, the entirety of the United States' domestic supply of rare earth metals is found in one California mine, run by a company that is at least 10% owned by a Chinese investment company.

In an interesting coincidence, in July 2020, the Pentagon announced it would fund two domestic facilities to process and produce rare earth metals. One facility is located in Texas and is run by Lynas Group¹ out of Australia, and the other located in California and run by MP Materials.

One might think the Pentagon was (finally) taking the threat of Chinese dominance of the rare earth market seriously.

But there are always critics.

In an article critical of the Pentagon's decision, James Kennedy wrote for <u>Defense One</u> that it was a mistake for the Department of Defense to fund MP Materials. You can read the article for

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yourself, but here's the kicker (at least for me)—

But there are other reasons to question the Pentagon's judgment. One is that MP is partially funded by a Chinese company that acts as MP's sole off-taker. This Chinese participation should have raised serious questions within the Pentagon, as it has within the U.S. Department of Energy.

The first question anyone should ask is: Why would the Chinese commit to buying rare earth concentrates with such a high dead-weight value? More than 82 percent of the [Mountain Pass mine] concentrate is cerium and lanthanum. These elements are in oversupply and sell below their mined and processed cost.

And then: Why would China bother to haul these low-value materials across California and the Pacific Ocean for processing when it has access to much better rare earths from new producers in Asia and Africa?

Some industry analysts suspect that China's interest in propping up MP is to use this U.S. company as a proxy to influence U.S. policy with the simple objective of protecting and extending its monopolistic advantage.

Another obvious problem is that MP, like its predecessor Molycorp, ships these materials to China to be converted into their usable form, metals, alloys or magnets, doing nothing to minimize U.S. dependence on China.

Thus, while the Pentagon may be doing *something*, at least one critic suspects it is the wrong thing.

What should the Pentagon be doing? Well, if you must ask...

In the 2012 PCLJ article, I suggested that the best first step towards solving the problem would

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be to have the Pentagon become the buyer for Mountain Pass' output. The Department of Defense should work towards creation of a strategic stockpile of rare earth metals, with as much content as possible coming from domestic sources (such as, but not limited to, Mountain Pass mine). Then it should make those rare earth metals available to its prime contractors, so that they would not have to be responsible for sourcing the commodities on their own.

Will that suggestion ever come to pass?

Who knows?

But in the meantime, if you believe in the national security of the United States and the vibrancy of its technology in both commercial and defense applications, then you better start watching what's going on with rare earth metals.

¹ Interestingly, Lynas Group didn't much like my 2012 PCLJ article in which I asserted that the company essentially was exporting pollution by doing its ore processing in countries with lax environmental standards (*e.g.*, Malaysia)—which led to artificially low prices for their rare earth products. In response to my article, I received a two-page single-spaced letter of disagreement typed on corporate letterhead.