

## Part 5 – The US and the abandonment of a sector



This chapter of our series around the rare earth elements starts with the opening of the American Mountain Pass mine in the Mojave Desert, California in 1952. Initially thought as an uranium deposit, the Mountain Pass mine became quickly a rare earth supplier for the increasing demand of electronics and military technology during the Cold War.

Back at that time, the Mountain Pass mine was the largest rare earth supplier in the world – producing up to 45 kg per day of 99.99 % pure Europium. New and more efficient solvent processes were constantly being developed as well.

However, the arrival of the 90's came together with the dawn of the Chinese dominance over the rare earth sector. The Mountain Pass mine was no longer profitable due to the higher production costs compared to Chinese mines. <sup>[1]</sup>

First, the U.S. Government and the main manufacturers considered it to be worthier to export and refine rare earth ores to other countries – mainly due to less restrictive environmental regulations. In 2002 the mining operations in Mountain Pass ceased.

During the last decade, the strong reliance due to the monopoly of Chinese rare earths came to the attention of the policymakers in Washington. This situation increased the concerns about the supply for the American high-tech and military industry. During the so-called commercial war between China and the U.S. the Chinese Government has threatened several times to cut rare earth exports and increase the import duties on rare earths concentrates.

After several attempts of reopening and different owners, MP Materials was finally successful in 2017 and the company is still operating the Mountain Pass mine. Today, 15 % of the global rare earth concentrates – which is around 30,000 t – are produced in Mountain Pass. However, it still requires a further processing in Asia. <sup>[2]</sup>

<sup>[1]</sup>Hurst, C. China's Rare Earth Elements Industry: What Can the West Learn? Institute for the Analysis of Global Security (IAGS): Washington, DC, USA, 2010; pp. 10–20.

<sup>[2]</sup><https://www.defensenews.com/opinion/commentary/2019/11/12/the-collapse-of-american-rare-earth-mining-and-lessons-learned/>

