

Energy Fuels on its way to becoming a major American rare earths processor

News from Energy Fuels Inc. (TSX: EFR | NYSE American: UUUU) on December 14, 2020 was an important milestone for the company, as it announced a new three-year supply agreement for monazite with The Chemours Company (NYSE: CC). Energy Fuels has contracted for a minimum of 2,500 tons per year of natural monazite sands from Chemours' Offerman Mineral Sand Plant in Georgia.

The significance of this event should not be underestimated. As described in the press release and discussed on the conference call on December 15, 2020, Energy Fuels will be the first U.S. company in years to produce a marketable mixed rare earths concentrate ready for separation on a commercial scale. The company estimates that the amount of rare earths contained in the monazite sands supplied by Chemours will equal close to 10% of total current U.S. rare earths demand, as contained in end-use products. While the minimum 2,500 tons per year is contracted, there is opportunity to increase this tonnage from Chemours over time.

As we know, the global focus on rare earths supply is exacerbated by two key factors. Number one of course is the global stranglehold that China has on the supply of rare earths. China arguably has the world's most complete rare earth industry chain, which means in order to make full use of the rare earths mined in various countries, they must go to China for processing. China produces approximately 80% of the world's rare earths but can only supply about 30% of the input.

Number two is the obvious increasing demand for rare earths

due to their critical usage in most things electronic as well as the crucial components in military technology. Recalling the OPEC oil embargo of the 1970s, the world has learned that it is a bad thing to have one potential (and sometimes not so friendly) supplier of a critical global commodity. Recognizing recent global developments, US President Trump declared a national emergency in the mining industry with a view to (re)creating a domestic industry for the production of rare earths.

Why does the US not have a domestic rare earths processing industry? Many if not most rare earths ores contain low-levels of radioactive materials, including uranium, necessitating extensive radioactive materials licensing requirements. The 100%-owned White Mesa Mill has existing and operating infrastructure (licensed, constructed and in operation – today) with a 40 year history of “responsibly managing low-level radioactive materials”. Energy Fuels is in a unique, industry-leading position with this asset.

Energy Fuels will process the monazite from Chemours at its White Mesa Mill starting in Q1-2021 to recover the contained uranium and produce a marketable mixed rare earths carbonate. In October, 2020, the company produced a rare earths concentrate on a pilot scale from four (metric) one-ton samples of monazite, validating its processing systems at White Mesa Mills. Total cost (including processing supplies and equipment) was only approximately \$2 million.

It is important to note that according to Energy Fuels, the company will be low on the cost curve for a rare earths production facility, perhaps competitive with Chinese. It should also be noted that White Mesa Mill is licensed and designed to process 2,000 tons of ore per day – the 2,500 tons per year of monazite ore from Chemours will not tax the capacity of the mill. Energy Fuels has a goal to process 15,000+ tons per year of monazite and would be looking to divert other global sources of monazite ore to White Mesa

Mills for the recovery of rare earths and uranium. At this throughput level, Energy Fuels would possibly also have expanded into a dedicated separation circuit for rare earths. A scoping study for this is expected to be undertaken in 2021. Further future value-added expansions by the company could also include construction of a rare earths metals and alloy circuit.

This is a great pivot by the company in just nine months from a pure uranium/vanadium producer to utilize the synergies and underused capacity of White Mesa Mill, on its way to becoming a major domestic rare earths processor. As the US strives to achieve a domestic rare earths industry, watch for Energy Fuels to become a key player in full integration of the domestic rare earths supply chain with the White Mesa Mill.