

Rare earths mining company, DOE lab team up

Manuel Quinones, Environment & Energy Publishing, 4-11-11

Mining company Molycorp Inc. and the Department of Energy's Ames Laboratory have entered into a research and development agreement to make rare earth magnets.

It is an effort by the company and the government to boost domestic production of advanced tools made with rare earths, a group of elements that are difficult to mine but essential in numerous high-tech products, including smart phones and military equipment.

"A lot of the things we are doing are promising and down the road could improve the market situation in the U.S.," said Karl Gschneidner, an Iowa State University professor who will lead the research.

As part of the project, Ames scientists will look at several compositions of rare earth minerals and processing techniques to produce magnets with properties like currently available neodymium-iron-boron magnets, a press release said. Rare earth magnets are used in hybrid cars and wind turbines.

China has become the world's leading supplier of rare earths and is reaping the technological benefits associated with the resource. The country's decision to curtail exports has led the United States and other countries to look for ways to secure their supplies and beef up local economies associated with rare earths.

"We are committed to re-establishing the whole stature of the United States," said Molycorp CEO Mark Smith in a conference call last week during a rare earths symposium at Iowa State. "We are putting our money where our mouth is in that regard."

Rare earth mineral production in the United States ceased in 2002, as China became a cheaper source. But Molycorp has since recommenced activity at its Mountain Pass, Calif., facility. Still, the company knows that simply mining rare earths is not enough to make the project viable in the long term. Executives have been working on agreements to secure a market for its minerals.

"When we take ore out of the ground, it is essentially already committed. These are not commodities," Andy Davis, Molycorp public affairs manager, said at a recent rare earths conference in Washington.

Company and government officials hope their agreement also boosts U.S. knowledge of rare earths and cultivates more experts in the field. China is also ahead in that regard with significant government spending in education to produce scientists in rare earth production and product development.