Unseen investment opportunity highlighted

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RIO may add Thorium to the RIO Professional Investors Fund holdings.

Thorium, an alternative to Uranium?

Rather than concentrate solely the uranium roller coaster on a down loop investors who are investing for the long-term need to take a serious look at the naturally occurring radioactive metal, thorium, would have been the metal of choice for the development of nuclear powered electric generating stations.

Is it time for thorium to make its re-entry on the global stage? *The answer is yes, and therein lays an opportunity.*

A lot has happened since then with regard to both uranium and thorium, but only the run up in the price of uranium has been covered by the financial press. Even that run up has been covered by short sighted analysts as if an increasing demand for uranium is a given. I want to bring the readers of RIO investment report up to date on the very significant events that have occurred in thorium power technology and the re-assessing of America's thorium reserves since then.

Thorium although it had a relatively abundant fissile isotopes was immediately relegated to a back seat, because its properties dictated that although it could be used to manufacture a nuclear reactor it could not be used to or be useful in the construction of a fission weapon!

Thorium powered reactors were designed and built during and just after World War II to test power an ocean going vessel and to create the first civilian use only nuclear power plant at Shipping port, Pennsylvania.

Early proponents of civilian nuclear power did not want to manufacture devices from which weapons grade materials (i.e., highly enriched uranium or the new synthetically produced and highly fissile plutonium) could be easily extracted, because at the beginning of the "atomic age" it was believed that only a massively expensive and sophisticated industrial nation could afford to build the enormously costly and limited use base to produce weapons grade materials.

So, the development of thorium-based nuclear reactors was continued for a while in parallel with those using uranium and/or plutonium-based technologies. Then a series of intelligence underestimates and political errors combined to terminate government support and funding of what parallel development there was and to propel uranium to the first and only place in the race.

First, the devastated, and by American standards, primitive Russian industrial base produced and detonated a test atomic bomb in 1949. Then Great Britain whose scientists had contributed to the bomb's development way out of proportion to their numbers, but whose industrial base was considered to have been shattered by the war, followed the Russians shortly after with a successful test of their own even though Britain had been cut off from research and development information almost as soon as the war ended.

The atomic arms race was on, and it became the obsession of the world's politicians that the future must belong to the leader in numbers of atomic weapons. Thorium reactors were quickly forgotten for the same reason as they had once appealed. They could not be used, in any easy way, to make weapons grade material. Uranium and its daughter element, plutonium, were crowned the undisputed queens of nuclear power.

The governments of the nuclear powers went on a 50 year binge of hypocrisy. They talked about clean cheap safe civilian nuclear power but they skewed the nuclear power industry through subsidies towards uranium. This kept the weapons grade uranium and plutonium pipeline with a backup system and kept the nuclear fuel reprocessing industry in business economically. Most insidiously the public was trained to view safety as the prevention of detonations (not possible) or leaks (less likely than at carbon-based power plants) rather then the prevention of any possibility at all, of producing weapons grade material. Thus thorium was relegated to the back of the funding line.

It is too dangerous to build or allow remaining in operation nuclear reactors that can produce weapons grade material in some regions of the world (Iran for example there are many other such regions). The answer is thorium-based nuclear reactors!

Look at the U.S. Geological Survey (USGS) documentation on thorium, but, be aware, that it is out of date. The current USGS material shows the U.S. with less than 200,000 tonnes of thorium reserves. In fact a new company, so far private, Thorium Energy, Inc. told me that the unpublished results of a new study commissioned by it from the USGS that show that TE's Lemhi Pass property in Idaho has 600,000 tonnes of thorium reserves by itself. This if proved out would give the U.S. the largest reserves of thorium in the world, and would in fact be more than 1/3 of the world's known thorium.

The Lemhi Pass deposit is said to be primarily thorium, and this is rather unusual historically. Most of the world's known thorium reserves are byproducts of rare earth minerals such as monazite, which, coincidentally, is also found in a property called the Mountain Pass site in southern California, which environmentalists shut down because of the radioactivity from the thorium in the tailings - the thorium was not concentrated and removed because it had little or no commercial value.

I don't know who owns this property now, but keep an eye open for it. Mountain Pass could come roaring back.

The main source of rare earths today, globally, is China, and the principal producer of rare earth metals there is a unit of the parent company, Baotou, of China's third largest steel maker, Baosteel. The products of Baotou's rare earth production unit are marketed in North America by a Canadian subsidiary named HEFA. It is intriguing that the website for HEFA, which names all of the rare earth products available from the company, does not mention thorium. Does this mean that the Chinese do not know the thorium is there, or does it mean that they do know but have no wish to sell material outside of China that can be used in place of uranium?

Thorium Power, Inc. has told me that they already have the technology to "switch over" from uranium to thorium more than 60% of the reactors in use today in the world.

William Gray