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Saskatchewan: Uranium Capital of the World

By LARRY AARON/Special to the Star-Tribune

Editor's note: Danville and Pittsylvania County teacher and author Larry Aaron is among a group traveling to Saskatchewan, Canada, this week to visit a working uranium mine and mill. The trip is funded by Virginia Uranium Inc., which hopes to mine the Coles Hill uranium deposit northeast of Chatham.

If there ever was a place where uranium was a primary source of income, a major employer, hefty source of tax revenue, and its mining and milling in an unlikely context, it's Saskatchewan, Canada.

Which is why I decided to take the opportunity offered by Virginia Uranium to accompany Virginia legislators and other local citizens on this trip to that Canadian province and actually see the terrain and the mining operation itself.

Besides, being able to observe a uranium milling operation in progress and go into an underground uranium mine could offer insight into what might occur in Pittsylvania County in years to come.

As this latest edition of the Star-Tribune becomes available on Wednesday, Sept. 28, I will be miles high above the earth heading home from Saskatoon to Richmond, mulling over the observations about what I've seen and heard.

Saskatchewan province, six times larger than Virginia with one-eighth its population, is covered with prairie and forest, produces the majority of Canada's grain, and its beef cattle production is only exceeded by Alberta.

The province is also the largest exporter of uranium in the world, with some of the highest grade ore deposits ever found.

Given to temperature extremes from various air masses and a fourth of the average rainfall in the Pittsylvania County area, Saskatchewan nevertheless has wetlands and abounds with lakes and rivers.

In fact there are over 10,000 lakes in Saskatchewan and many are found in the northern part where uranium operations exist.

Cameco, short for Canadian Mining and Energy Corporation, along with the French-owned Areva, has invested heavily in mining there.

Cameco's Eagle Point uranium mine operation is the largest in the western world and its Rabbit Lake milling operation is the largest worldwide.

What I find intriguing through my research is that Cameco's mining and milling operations are basically surrounded by water, especially nearby Wollaston Lake and Collins Bay, both home to trout, northern pike, and other game fish.

Truth is, Wollaston Lake attracts fishermen from all over seeking trophy-size catches in one of Canada's best freshwater fisheries.

It is also interesting that Wollaston Lake is the largest lake in the world draining in two different directions, into both the Arctic Ocean and also the Hudson Bay.

But my interest goes beyond the locale and environmental picture in Canada. We can hardly do without nuclear energy; in fact, it saved my life.

I've had radioactive "seed" implants to treat prostate cancer and was told not to be near pregnant women or very close to children for six weeks.

To be sure the cancer had not spread before that procedure I was given a full body

skeletal scan using Technetium 99, that "dye" they inject into you when you have a CAT scan or PET scan also.

Medical radioisotopes like the ones above are widely used and are made in nuclear reactors run by uranium dug up in somebody's back yard.

Beyond that the use of both can set off a radiation alarm in a nuclear reactor for months afterward.

Not only that, the radioisotopes above decay by emitting those "bad boy" gamma rays that penetrate body tissues.

The daughter products of Technetium 99 especially have a half-life of 210,000 years (yes that figure is correct) but the radioactivity is so low it's not harmful.

I also know that 20 percent of the electricity that comes into my home originates from nuclear power plants, whether I like it or not.

So, if uranium and what it does for us can be so good, why is it so bad?

It's the milling process, the dust and tailings, we're told. Radioactivity and some dangerous heavy metals are found in the tailings and perhaps they can leach out or get access to the environment and pollute the land, air, and water. They have in the past.

Then why is it that the streams and lakes and rivers around Cameco's uranium mines and milling sites reputedly boast an excellent record regarding pollution?

Good question.

And that's what I wanted to find out too - among other things.

Hopefully both Cameco and the Canadian Nuclear Safety Commission will have some answers.

Stay tuned.