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Editorial in Question:

Maintain the Ban (On Virginia Uranium Mining?)

Posted December 16, 2012

The *Virginian-Pilot* Editorial Board

This *Virginian-Pilot* editorial represent the consensus of the Editorial Board, which is independent of the newsroom. Board members are: David Mele, publisher; Donald Luzzatto, editorial page editor; and Candy Hatcher, Daryl Lease, Shawn Day and Michelle Washington, editorial writers.

State lawmakers have no shortage of research to help inform a decision about whether to repeal Virginia's 30-year-old moratorium on uranium mining. The latest report, issued last month by Gov. **Bob McDonnell's uranium working group**, is full of information about the scope and depth of a new regulatory framework to oversee an operation like the one proposed at Coles Hill, the Pittsylvania County property holding 119 million pounds of uranium ore.

[See: <http://www.uwg.vi.virginia.gov/pdf/UWG%20Report%20-%20FINAL%2030Nov2012.pdf>]

That uranium would be trucked out of state and enriched into fuel for nuclear power plants.

Advocates tout the reserve near Chatham as an opportunity to boost an economically depressed area, diversify the nation's energy portfolio and increase revenue to the state.

[The word “tout” has the disagreeable connotation of a person “touting” an indefensible position. It is a biased word usage by the reporters of this editorial.]

Lifting the ban also **would finally allow property owner Walter Coles Sr. to reap the fortune** - as much as \$7 billion - beneath his home and land.

[How is this relevant to the discussion? The fact that someone will profit by this venture is understood or this proposed mine would never even have been considered for development. This sounds like jealousy coming from (or projected to the reader by the reporters) those who do not have an important mineral resource on their land. In addition, the \$7 billion profit assumes that Mr. Coles mines it himself with no overhead costs like personnel, equipment, shipping, etc. It assumes he will pocket 100% of the current price for uranium, which is clearly an exaggeration intended by the reporters. Being the landowner, he'll typically pocket somewhere

between 5 and 12 % royalty of the \$7 billion (or whatever amount is realized in gross revenue for the project), the remaining revenue going to the company that will actually perform the mining. The company will need to pay all personnel and mining costs, taxes, etc. out of this remaining amount. Mr. Cole is being criticized for developing resources on (or under) his land in a way that is advantageous to him and his family. This is an example of capitalism at its best, the creation of wealth from a natural resource.]

They contend that science has so advanced that risk of a mining disaster is effectively eliminated; the past 25 years have brought new technologies capable of safeguarding the environment and public health.

[Yes, that is correct.]

Opponents have said, correctly, that substantial risk is inherent in mining and milling uranium, and that even after the mine closes, the risks of long-term storage of radioactive tailings will demand public monitoring for millennia.

[The reporters of this editorial admit that the editorial is biased because the opinion of the opponents has been indicated as being “correct” and hence the contention that risk has been reduced is, by implication, incorrect. The comment that it would require public monitoring for millennia is pure hyperbole by the reporters to impact the reader. In the words of the Working Group’s report: “In the case of tailings storage and management, monitoring would need to occur indefinitely.” This means that public monitoring would continue for many years as an integral part of the project’s goal of closing the project only after the State and Federal agencies have signed off that the company has met its long-term obligations.

Over the last 25 years there has been a major change in environmental laws that require very strict guidelines for environmental protection and remediation requirements. “Public” monitoring (indicating that oversight by State and Federal agencies would be involved) is typically performed by independent consultants engaged by the company and reviewed by the State and Federal agencies to demonstrate that key contaminants are stable and not migrating off the property.

Monitoring can last for 30 years after remediation is completed by the company involved, and consists of taking water samples from streams and ground-water samples from so-called sentinel monitoring wells at regular intervals. These data would be compared to the data collected during the pre-mining environmental assessments of surface-water and ground-water quality. This pre-mining sampling is important to determine if surface water has been naturally contaminated by the mineralization now exposed in outcrops or where shallow, oxygenated ground water has migrated through ore mineralization in the subsurface thousands or even millions of years before

the uranium deposits were ever discovered in Virginia. Once the water-quality baseline has been established (showing no uranium or degradation products, i.e., radium, radon, etc. are present in the ground water sampled from the sentinel monitoring wells surrounding the mining operations within the property boundaries), the post-mining sampling would indicate clearly if contaminants from the tailings or waste-rock sites are leaking into streams or ground water within the mining site. If so, the specific area would require further remediation to restrict any contaminants from migrating off site. All these pre- and post-mining activities are well known, well-practiced procedures implemented by industry when needed, and all have been overseen by State and Federal agencies as part of their regulatory responsibilities to the general public.]

Virginia's moratorium was enacted in 1982 to prevent mining at Coles Hill before lawmakers could determine whether it was safe. By the time studies concluded, the market for uranium had fallen and interest waned.

[The moratorium was appropriate at the time because the environmental problems with the type of mining that would be required for this type of uranium deposit were being defined and gave the EPA and the State environmental agency time to develop regulations for environmental protection. The EPA continued to develop environmental guidelines even after the price of uranium fell. The Virginia legislature never reviewed these new regulations because there was no interest in the Coles Hill deposit for 25 years, until the price of uranium rose to levels where certain uranium deposits could be mined at a profit.]

The market is now better. And the interest in nuclear power remains steady.

[Actually, interest in nuclear power has risen over the past seven years driving up the yellowcake price. This is another false statement by the reporter designed to minimize nuclear power. If the reporters can marginalize the importance of nuclear power in the global energy picture, then the significance of the Coles Hill deposit is also weakened.]

Sen. John Watkins, a Republican from Midlothian, announced recently that he will introduce a bill next month to end the moratorium.

The latest advisory group, he said, reached a conclusion similar to its predecessor's, which noted in a 1985 report that "the moratorium on uranium development can be lifted if essential works of the (group) are enacted into law." That is the same logic offered by uranium supporters today, and it is as flawed now as it was then.

[Who determined that the 1985 report was flawed? This is an assertion by the reporters without a basis.]

Optimistic assertions about safety and risk at a Coles Hill mine belie the reality of scientific discovery and technological advancement. History is rife with examples where every imaginable safeguard was in place before the unimaginable happened. The debate, therefore, becomes one of benefit and risk.

[Who determined that the assertions are optimistic? The reporters of this editorial are not qualified to judge comments regarding the degree of safety and risk at the project. Every human endeavor involves risk: Driving a car and crossing the street (vehicular impact), eating a steak (choking), playing golf (lightning strike or errant golf ball), sitting in a chair (being struck by a meteorite, etc.). Actually, safeguards in the 1960s and 1970s, a time when major uranium mining took place in this country, were nowhere near as effective as they are today. During that time much was unknown.

Yes, people were likely hurt from exposure (although most were smokers, another risk undertaken by people at the time). Most were nonetheless compensated. It's unfortunate that major progress and advancements are made after the suffering of others. Should we have abandoned the space program after the first Apollo capsule burned on the launch pad with three individuals aboard? Or maybe we should have abandoned all efforts after each of the two shuttle disasters. It seems that human progress by its very nature involves risk but part of the government's job is to encourage progress as well as provide environmental oversight on behalf of the people.]

Republican Del. Don Merricks, who represents the Chatham area in the state House of Delegates, described the battle over lifting the moratorium as among the most important decisions of his life, and one that is ripping apart his community.

[Mr. Merricks' opinion does not represent the last word on the subject. His colleague State Senator John Watkins, R-Powhatan, announced recently that "he will introduce legislation to lift the moratorium." Watkins serves on the Virginia Coal and Energy Commission's Uranium Mining Subcommittee, which will soon meet again in Chatham, VA.

See: <http://www.roanoke.com/politics/wb/317673>]

The mine at Coles Hill could be a boon to the region. One study has projected that over 35 years, the mine would support 1,000 jobs annually and help pump \$135 million into the local economy each year.

[That \$135 million per year is generated from the \$7 billion dollars estimated net worth of the Coles Hill deposit.]

As enticing as that may be, even the Danville Pittsylvania County Chamber of Commerce opposes efforts to end the state moratorium on uranium mining, spurred by concern for existing businesses, public health and the environment.

[Concerns for public health and the environment are legitimate concerns, which can be mitigated by the EPA and State rules and regulations in existence. However, concerns for existing businesses? How can the Danville Pittsylvania County Chamber of Commerce say that an influx of \$135 million per year is bad for the community?]

Merricks has said the prospect of the mine has harmed economic activity, including home sales and efforts to attract businesses, in the Danville region. The risk to groundwater is nagging, and many worry about the radioactive waste produced during the milling process.

[Many communities have seen property values go down mostly because everyone panics and decides to move out, while scaring off potential buyers with tales of unproven horror from mining activities that haven't even begun. Again, environmental rules and regulations require protection of the air, soil, and ground water, and provides for remediation of any releases on or off the mining property. This provides a boom for property speculators to buy low and sell high when the public realizes the risks are minimal and wish to return for jobs.]

Those risks are troubling to the people who live there, and even more so for the folks working in the area's most lucrative industry, agriculture, which could be jeopardized by a catastrophe at a uranium mine on Coles Hill.

[The reporters have set-up a non-existent bogey-man for the purpose of fear-mongering, which "sells" interest in the editorial. This is to be expected, especially in lieu of the scare tactics used by many "environmental adversarial" groups over the past decades. Notice the terms used by the reporters of the editorial: "troubling", "jeopardized", and "catastrophe" – all used to impact the reader.]

A study under way at the University of Virginia's Weldon-Cooper Center for Public Service to establish agriculture's value to the Danville area isn't scheduled to be finished until January. But statewide, the industry's annual economic impact is estimated at \$55 billion.

[This is another example of scare tactics in use by many reporters. Are these reporters claiming that the value of agriculture to the Danville area would be diminished by mining and/or by any leaks that might occur? This is a gross exaggeration of a very low risk.]

Virginia Uranium Inc., Coles' company, has spent more than \$200,000 in the past five years lobbying state officials to lift the moratorium.

[How is this pertinent to the discussion? If you want to change a law, it takes money. Besides, \$200,000 over five years is only \$40,000 per year, hardly the annual salary for one lobbyist for

one year. This figure is actually very reasonable but the reporters have represented the cost as being outrageous by inference.]

The company has flown lawmakers to an inactive uranium mine in France and an active operation in remote northern Canada to highlight instances where the ore has been extracted safely.

[The reporters are implying that there's an impropriety here. The best way to see if there's any danger and what can be done about it is to visit similar mines, both active and inactive. Would it have been better to have the taxpayers pay for this?]

But as the National Academy of Sciences noted in its 2011 study of uranium mining in Virginia, no other mine in the world shares the same geologic, climatic and geographic characteristics as Coles Hill.

[The reporters have clearly misled the reader with the sentence above. The NAS report does not state or infer what the reporters have indicated. It is a clear falsehood. There are other uranium mines with similar geology, climatic and geographic characteristics. The NAS actually states that:

“The report does not focus on the Coles Hill deposit, but instead considers uranium mining, processing, and reclamation in the Commonwealth of Virginia as a whole. The committee was not asked to consider the benefits of uranium mining either to the nation or to the local economy, nor was it asked to assess the relative risks of uranium mining compared with the mining and processing of other fuels, for example coal. The committee was also not asked to make any recommendations about whether or not uranium mining should be permitted in the Commonwealth of Virginia.”

For the NAS report, see: <http://dels.nas.edu/Report/Uranium-Mining-Virginia-Scientific-Technical/13266>]

Uranium mining in the U.S. has been restricted to the more arid Western states; Canada's mines are far removed from major population centers; the mine site in France isn't susceptible to the same kind of extreme weather as Virginia.

[What about other mines around the world, especially in southern Canada with similar uranium geology as Virginia? The reporters have conveniently ignored other areas. The climate of Virginia is considered mild compared to other States and Canada.]

Private wells and Lake Gaston, a source of drinking water for about 1 million people in South Hampton Roads, are downstream from Coles Hill.

Although Virginia Uranium Inc.'s plans for storing radioactive tailings underground appear to eliminate the risk of contaminating the watershed, the possibility has spurred officials in Virginia Beach and Norfolk to oppose lifting the moratorium.

[Again, this is fear mongering by the reporters when stating that the plans for disposing the mine tailings eliminates the risk of watershed contamination; but he (or she) also infers by adding the word “possibility” that contaminating the watershed has spurred officials to oppose the plan as the basis for opposing the lifting of the moratorium. The reporters don’t bother to cite their source of such information and we can only assume it is speculation without such confirmation regarding the views of the officials.]

They have acknowledged municipal facilities are capable of treating contaminated water and bringing it into compliance with federal safety standards but insist current laws would prevent them from pumping contaminated water into a local reservoir. Even if they can, they've said public perception of the water as contaminated would be devastating for life and business in Hampton Roads.

[So perception is everything? If the company can prevent exposure to the general public, overseen by State and Federal agencies, but a minority public perception says the company can't, should that be the end of the discussion? We think not. We should never give up on a correct argument because of an incorrect minority public perception. If we did, we'd still be teaching our children that the Earth is flat and that the sun and stars revolve around us.]

Mining poses significant risks to the environment and public health, and a uranium mine at Coles Hill would magnify those risks.

[Yes, mining does present significant risks to the environment and public health, but they can be managed effectively by the company, with oversight provided by the State and Federal agencies so as to minimize the risk. Coles Hill won't magnify those risks any more than any other type of uranium mining in this type of geologic setting. Once again the reporters are tugging on the readers' perception of risk. The FFA and companies manage the risk of humans flying at 35,000 feet in a pressurized aluminum cylinder and flying is now the safest managed transportation risk we deal with daily.]

Meanwhile, there is no urgent need to tap the reserve at Coles Hill; existing, known global uranium reserves provide more than a 50-year supply, and technology exists to develop nuclear facilities powered by recycling nuclear waste.

[Most of that stated above is erroneous! Uranium mining only accounts for 60% of the needed annual amount in the U.S. to fuel its current 104 reactors, although others are coming on-line in the next few years. Nuclear fuel also has been coming from the U.S.-Russian nuclear weapons destruction program, which will expire in 2013 and will not be renewed. There is currently no other recycling of nuclear products being performed. Therefore, a uranium shortage is projected to occur in 2013 causing the price to go up significantly.]

The more we can develop our own uranium supplies, the less we will depend on overseas sources for nuclear fuel. Also, the cost of the yellowcake produced in Virginia will be less than any other source for fueling nuclear reactors in the eastern U.S.

Type IV reactors that recycle fissionable products will not be available for a decade or more. The reporters are either misinformed on the above issues or are purposely misleading the general public.]

The National Academy of Sciences' report on the matter noted obstacles that would need to be overcome to reduce the potential for harm, including creation of a regulatory framework - estimated to cost \$3 million to \$5 million annually - and preparation for rare, but catastrophic, events such as tornadoes, hurricanes and earthquakes.

"It is questionable," the panel wrote, "whether currently-engineered tailings repositories could be expected to prevent erosion and surface and groundwater contamination for as long as 1,000 years."

[These safeguards are already in effect by the EPA. We assume the study is for setting up the needed regulatory framework in the State of Virginia. However, we are highly doubtful that this would be more than a startup cost, since much of the support for the framework (personnel and facilities) are already in existence in Virginia.

Actually, the following sentence in the Report reads:

"Natural events such as hurricanes, earthquakes, intense rainfall, or drought could lead to the release of contaminants if the facilities are not designed and constructed to withstand such events, or if they fail to perform as designed".

The NAS Report does not state that such a facility should not be built, only that it should be built with these constraints in mind. The NAS has also stated:

"At a more specific level, there are numerous internationally accepted best practices that would contribute to operational and regulatory planning for uranium mining in Virginia. These cover the health, environmental, and regulatory impacts of uranium mining."

The reporters' statement above is in direct opposition to the reporters' previous statement that the tailings could be safely stored underground.]

Virginia isn't unique among states dogged by regulatory failures, but a uranium mine is different.

It not only requires heightened vigilance during the operation of the mine, but perpetual oversight of a property that, as Merricks noted, is "essentially a Superfund waste site forever." The burden of that oversight, ultimately, will fall on taxpayers. Lawmakers must recognize that a finite, financial benefit isn't worth the infinite expense associated with lifting Virginia's moratorium.

[Actually, perpetual oversight of a property isn't needed, once the remaining waste can be shown to be stable. The statement that this is a Superfund waste site forever is more fear mongering by the reporters and a gross exaggeration by an uninformed person that may have ulterior motives for opposing the lifting of the moratorium. All mines today are required to have sufficient funds set aside to remediate any future problems, so oversight does not fall upon the taxpayers. These last comments represent the reporters' desperate attempt to panic the general public into

opposing the lifting of the moratorium on uranium mining in Virginia. A public forum was held in Virginia during November, 2011 that addressed many of the issues discussed above ([more](#)). It should be noted that as indicated in the introduction to the Forum: “Virginia Uranium Company had no involvement in the organization, election of speakers, or any input to the technical content of this workshop.”]

Original Editorial:

<http://hamptonroads.com/2012/12/maintain-ban-uranium-mining>