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All the credible science says, 'Keep the ban'

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I began my career as a water quality scientist in Virginia 40 years ago — six years before uranium deposits were discovered beneath farmland in Pittsylvania County. Since shortly after that discovery, Virginia law has banned uranium mining.

It is my firm belief, based on review of the highly anticipated National Academy of Sciences' report released last December, that the ban needs to remain in place.

In 2008, after Virginia Uranium Inc. announced plans to develop the only uranium mine, mill and waste disposal site in the eastern United States, the Virginia Coal and Energy Commission contracted with the esteemed National Academy of Sciences to conduct a rigorous, unbiased analysis of the idea.

The NAS heard testimony from a wide range of stakeholders during its review, including state agencies. Then, following release of its report, the Academy conducted public outreach sessions around the state to answer the questions and explain the report's conclusions in greater detail. Those sessions have just concluded.

Here are just three of the report's key findings:

- "Extreme natural events (e.g., hurricanes, earthquakes, intense rainfall events, drought) have the potential to lead to the release of contaminants if facilities are not designed and constructed to withstand such an event, or fail to perform as designed."
- "The decay products of uranium provide a constant source of radiation in uranium tailings for thousands of years, substantially outlasting the current U.S. regulations for oversight of processing facility tailings."
- "Because almost all uranium mining and processing to date has taken place in parts of the United States that have a negative water balance (dry climates with low rainfall) federal agencies have limited experience applying laws and regulations in positive water balance (wet climates with medium to high rainfall) situations."

This last point is critical. Federal regulations have been developed with an eye toward the arid conditions of the Southwest. For example, the U.S. Environmental Protection Agency generally requires

“no discharge of process wastewater” from uranium milling sites, but allows for controlled, contaminated releases in the *rare* event of a wet-weather year. Here in Virginia, of course, *every year* is a wet-weather year, making the “no discharge” requirement meaningless.

We might look to Virginia regulations to close these federal loopholes, but Virginia lacks the experience and expertise to oversee such a technically complex and potentially dangerous new industry. To be candid, I doubt whether state agencies would ever have the funding and political support necessary to do the job as rigorously as this threat demands.

Here’s why: Virginia consistently spends less than 1 percent of its total annual budget on environmental protection. That includes programs administered by the Department of Environmental Quality, the Department of Conservation and Recreation, the Virginia Marine Resources Commission and the Department of Game and Inland Fisheries. A fair conclusion to be drawn from this statistic is that the environment has not been a high priority for the legislature.

When I served as director of DEQ, I witnessed the very real effects of budget cuts on multiple occasions. Twice, I was compelled to borrow money from the treasury to meet payroll. Twice, permit fees had to be raised just to meet minimum standards for administering federally-delegated programs.

Staffing and operational budget cuts often come at the expense of data collection and inspection frequency. The forced triage of regulatory duties means that agencies must often rely on industry self-reporting — a prospect that should be unthinkable for an industry as risky as uranium mining and waste disposal.

I have seen wells contaminated by regulated industrial activities in Pittsylvania County and elsewhere. These are difficult problems to manage. Toxic and radioactive materials from uranium operations would only make these problems harder.

For legislators who said last year they wanted to “wait for the study,” that wait is now over. The Academy’s approach was open and transparent. All sides — mining companies, downstream localities, environmental groups, regulators, international experts — participated in and had “buy-in” to the Academy’s process. The final report was then independently peer-reviewed.

Meanwhile, Gov. Bob McDonnell has assembled a group within his administration to consider the issue. The governor should be encouraged to deliberate carefully, but his administration’s review should not be confused with an independent study.

The National Academy of Sciences report represents the gold standard here. That is why I am advising the governor’s internal uranium group to heed the Academy’s stern warnings.

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