

NRC Officials: Top Priority Is Protecting Public Health & Safety

The top priority of the U.S. Nuclear Regulatory Commission (NRC) is protecting public health, safety and the environment, NRC officials told Southside residents at a meeting of Governor McDonnell's Uranium Working Group held in Chatham in early August.

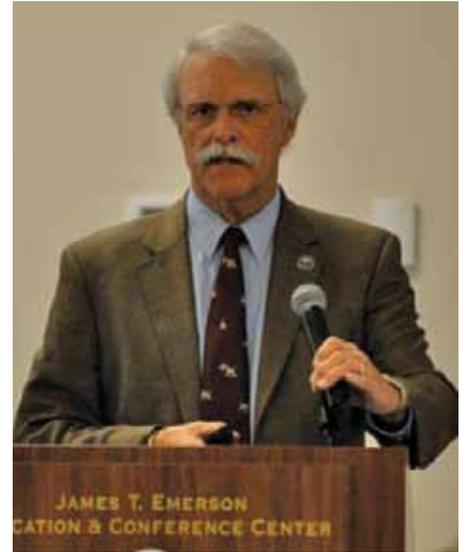
If the Virginia General Assembly lifts the state's moratorium on uranium mining, NRC officials said Virginia state agencies would regulate all mining activity, while the federal NRC would be prepared to oversee the milling operation and the management of tailings, the crushed rock left over after the uranium has been extracted during the milling process.

Larry Camper, Director of the NRC's Division of Waste Management and Environmental Protection, assured residents that the NRC would conduct a multi-

year site-specific Environmental Impact Statement before the agency would allow the project to move forward. He stressed that this exhaustive process would have numerous opportunities for public participation, including several public meetings in Pittsylvania County.

Another NRC official, Bill von Till, reassured the audience that major technological advances have made the industry much safer and more protective of the environment than it was in the early Cold War days. Specifically, he mentioned advances in below-ground tailings disposal, surface and groundwater protection and air quality monitoring as the most important technological advances in the industry since the 1970s.

Governor McDonnell's Uranium Working Group will complete its final report,



Larry Camper, Director of the NRC's Division of Waste Management and Environmental Protection

including draft regulations for uranium mining, by December 1st of this year. The General Assembly, in the 2013 legislative session, will then likely decide whether to lift the state's moratorium.

The Coles Hill Progress

Nuclear Expert: Stigma Concerns Not Based On Facts

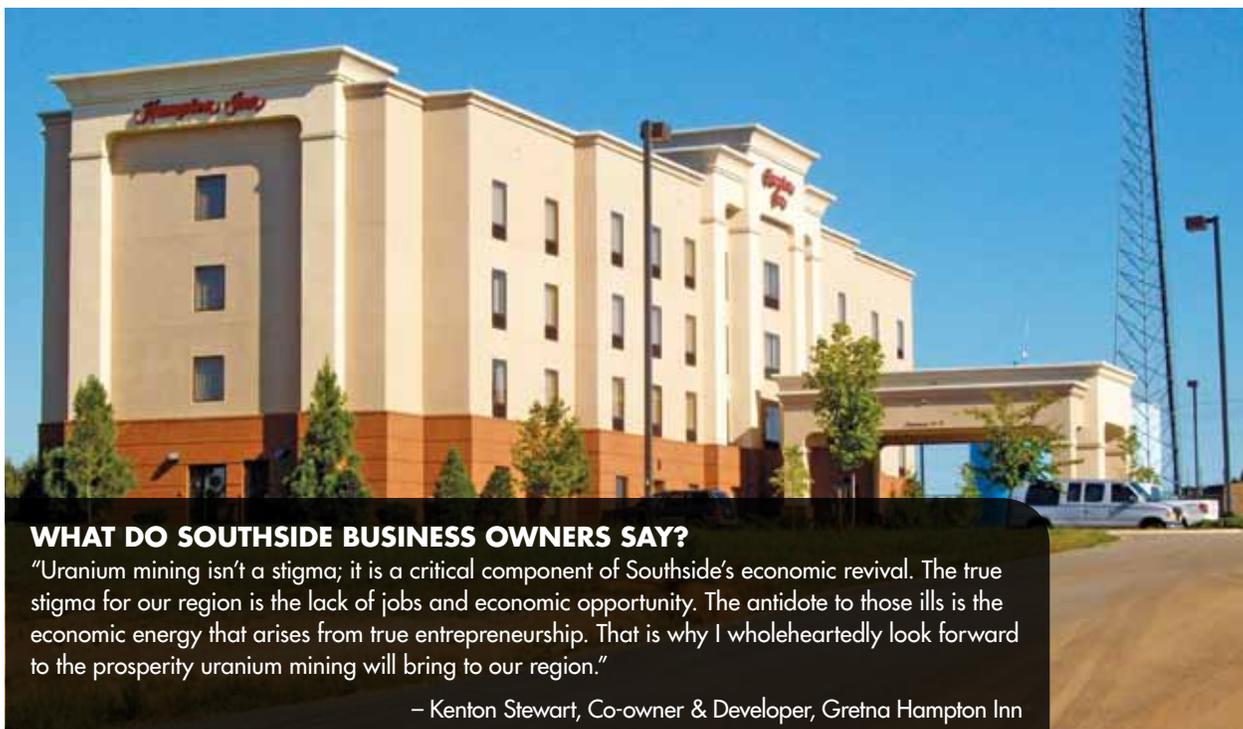
By Alex Thrower

For several years, there has been an extensive public conversation about whether to lift Virginia's moratorium on uranium mining and allow the development of the Coles Hill uranium deposit in Pittsylvania County.

One concern repeatedly raised by anti-mining activists is that even if no

actual environmental damage occurs, negative perceptions of uranium mining may inflict a "stigma" on the region, harming property values and business development. As an analyst who's studied stigma issues associated with nuclear facilities for more than 15 years, I assure you that their claims are unsubstantiated

Alex Thrower, a senior fellow at the U.S. Nuclear Infrastructure Council, previously served as counsel for the Blue Ribbon Commission on America's Nuclear Future.



WHAT DO SOUTHSIDE BUSINESS OWNERS SAY?

"Uranium mining isn't a stigma; it is a critical component of Southside's economic revival. The true stigma for our region is the lack of jobs and economic opportunity. The antidote to those ills is the economic energy that arises from true entrepreneurship. That is why I wholeheartedly look forward to the prosperity uranium mining will bring to our region."

– Kenton Stewart, Co-owner & Developer, Gretna Hampton Inn

by evidence and are based purely on speculation.

At first glance, the premise of the "stigma argument" seems straightforward – if asked, most people would say they would prefer not to live near any large industrial or commercial facility, whether it's a mine, factory, power plant or even a Big Box retail store. But the premise becomes very difficult to sustain when you examine actual market evidence in specific circumstances.

Over the years, social scientists have

conducted a good deal of in-depth research on the issue, and the findings do not support the claims made by uranium mining opponents. For the most part, these studies have found either no discernible negative effect, or in the few instances where one appeared to exist, it was small and short-lived. Some suggest a positive effect.

Experience thus far suggests that business investment in Southside has been unaffected by the prospect of uranium mining. In just the past few years, several

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Tailings Management: The Key To Protecting Water Quality

As the National Academy of Sciences (NAS) and other independent experts have shown, the most important way to protect groundwater systems and the waters of downstream communities is to safely manage mill tailings – the crushed rock left over from the milling process. In modern uranium mining operations, tailings are stored in below-grade cells, rather than in outdated above-ground dams and tailings ponds used in the 1960s and '70s.

In 2011, the National Academy of Sciences found that, "Full below-grade disposal of mill tailings is an option that has been developed specifically to eliminate concerns over the release of tailings..." The NAS study further concluded that, "To date,

modern tailings disposal cells have been effective at preventing groundwater contamination."

As the diagram below illustrates, modern below-grade tailings cells are heavily lined and covered with multiple layers to prevent leaks into groundwater and surface releases caused by heavy storms, flooding or earthquakes. In fact, the U.S. Nuclear Regulatory Commission (NRC) requires that tailings cells be designed to withstand maximum extreme weather events such as hurricanes, tornadoes and floods without releasing material into the environment. Here is how modern industry practices and federal requirements will ensure the protection of water sources in Southside and downstream communities:

GROUNDWATER MONITORING

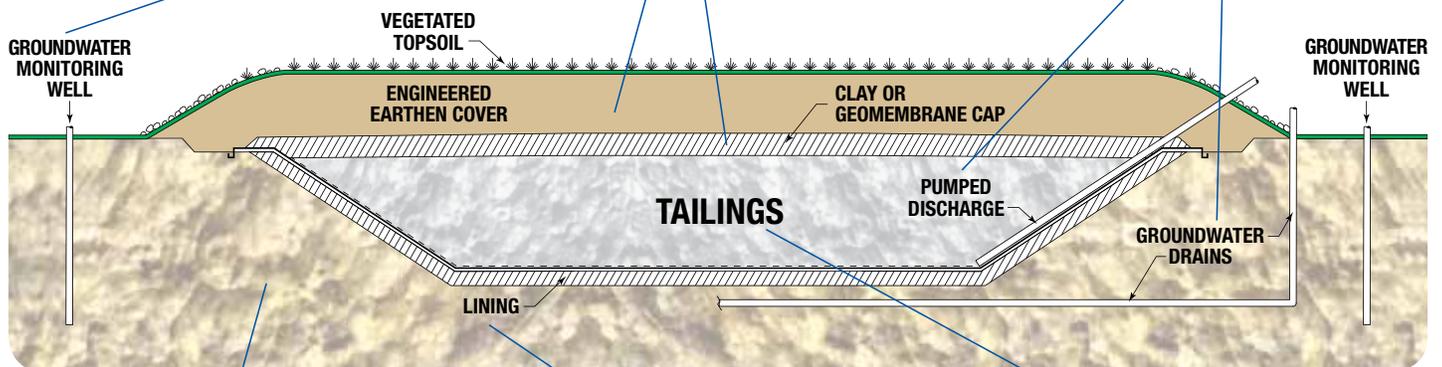
Routine and real-time monitoring of groundwater at multiple on- and off-site locations allows even slight elevations in contaminant levels to be detected and addressed on an immediate basis to ensure the maintenance of federal safe drinking water standards.

CAPPING

Covering tailings material with water during operations and capping with impenetrable synthetic and earthen material after operations are complete prevents surface and airborne releases.

WATER TREATMENT

Any runoff or excess water from the milling process is collected and pumped to the surface, where it is treated in a municipal-grade water treatment facility and brought up to federal safe drinking water standards before reuse or release on site.



LOW-PERMEABILITY ROCK FORMATION

The low permeability of the rock surrounding the tailings facility provides a natural barrier to prevent seepage of tailings into soil or groundwater.

LINING

Multiple, heavy-duty liners prevent the release of tailings into soil and groundwater.

BELOW-SURFACE STORAGE

Placing tailings below the surface eliminates the risk of any releases caused by heavy storms or flooding. Placing tailings above flood zones provides further protection against flood-induced releases.

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companies have announced plans to locate new facilities or expand existing ones in the region. When these companies chose to invest millions of dollars in Southside, they examined all foreseeable factors that could impact their investments well into the future.

They do not appear to have been scared off by the very real prospect of uranium mining.

When *The Washington Post* asked EIT CEO Joe May, who's also a member of the House of Delegates, if uranium mining factored into his company's decision to locate a new multi-million dollar facility in Danville in 2012, he said simply, "If I thought it [uranium mining] was going to jeopardize things, I wouldn't have my business there."

The stigma issue surrounding the Coles Hill project has a unique twist.

The private boarding schools Hargrave Military Academy and Chatham Hall are both located within several miles of Coles Hill. Some have expressed a concern that, if the Coles Hill project moves forward, parents will send their children elsewhere, while the schools and community suffer.

The evidence so far suggests otherwise. In 2011, even as the uranium mining debate garnered weekly headlines, Chatham Hall

WHERE IS THE STIGMA?

Area business announcements over the past few years suggest that investment in Southside has been unaffected by the prospect of uranium mining. A variety of companies have announced major plans to locate new facilities or expand existing ones in the region. These companies have committed to investing millions of dollars in the region in the midst of the highly publicized debate over uranium mining.

Business Investment in Southside Since 2008

February 2008	Com40 (EBI)	\$36.6 M
June 2008	Goodyear	\$115 M
October 2009	Japan Tobacco International	\$19.5 M
April 2010	EcomNets	\$1.5 M
September 2010	Essel Propack	\$10 M
May 2011	EIT	\$5 M
September 2011	GSO Aviation	\$1.5 M
January 2012	Nestle	\$2.7 M
September 2012	GOK International	\$12.5 M

recorded its largest freshman enrollment in the school's history.

I can offer a personal insight on this issue. As a student at St. Andrew's School in Delaware in the early 1980s, I lived within

12 miles of the Hope Creek Nuclear Power Plant, within the evacuation zone. We heard the loud emergency sirens being tested periodically. I don't recall Hope Creek ever coming up as a cause for concern. Just three years after the Three Mile Island accident, public concerns about nuclear power plants ran high. Yet, competition for admission to the school was fierce, as it remains today.

I do not mean to discount the valid concerns that Southside residents have. Government oversight should be robust and transparent, and residents need assurances that they will be protected. Let's all work as a community to ensure that residents are given accurate information to form their own judgments, instead of stoking misplaced fears with baseless speculation.



Stigma or Economic Revival?

1,000 Jobs

\$112 million State & Local Tax Revenue

\$137 million Annual Economic Benefits