**Virginia Department of Health Public Comment Meeting for Private Wells, Water Supplies, and Recreational Waters**

August 15, 2012, The Barn, Lord Fairfax Community College, Warrenton, Virginia

The Virginia Department of Health (VDH) sponsored two public meetings in Warrenton on August 15th and 16th to collect questions and comments from the public regarding private wells, public water supplies, and recreational waters as these relate to the potential for uranium mining and milling in Virginia. Notice of the meetings was provided via the Uranium Working Group (UWG) website (<http://www.uwg.vi.virginia.gov/index.shtml>), and the Commonwealth Calendar.

The second public comment meeting regarding private wells, water supply and recreational water use was held at The Barn, Lord Fairfax Community College, Warrenton on August 15, 2012, from 5:00 P.M until 8:00 P.M. All interested parties were invited to speak after signing up. Approximately 57 members of the public attended the meeting, and 19 individuals made public comments.

At the subsequent day-long meeting on August 16th, VDH invited interested parties to participate in a facilitated full-day discussion of concerns and comments identified during the evening meeting the previous day as well as any other concerns to be shared by the participants. The second meeting was held in the Rescue Squad Building, 310 Hospital Court, Warrenton. Those interested in participating in the day-long session on August 16th were required to register in advance. Participation was to be limited to 20 persons chosen at random from those who registered. However, only 18 persons registered to participate so all were invited to attend; 15 of those persons selected participated in the meeting. Three individuals did not present themselves for participation on the day of the meeting.

The objective of both public meetings was to gather questions and comments from the public on behalf of the UWG regarding potential impacts to private wells, public water supplies, and recreational waters from uranium mining and milling should the current moratorium on uranium mining and milling be lifted. Questions and comments identified through these meetings will be incorporated into the ongoing study being conducted by the UWG.

VDH asked participants to consider the following questions:

1. What are the public’s concerns related to the impact of uranium mining and milling on water quality and quantity of private wells?
2. What are the public’s concerns related to the impact of uranium mining and milling on recreational use of surface water?
3. What role should VDH play in assuring that public health is protected in regard to private wells and recreational water use in regard to uranium mining and milling?
4. What safeguards should be in place to protect private wells and recreational water?

The following is a summary of the comments received during the public comment meeting on August 15, 2012. The order of the subjects does not indicate priority, but is the order in which concerns were expressed by the speakers and later grouped to facilitate discussions for the meeting on August 16th.

Risk Comments, Concerns, and Questions

Many participants stated general comments about risk and whether the risk of lifting the moratorium and allowing uranium mining and milling was worth the risk to other areas of concern, such as the economy and public health of the citizens of the Commonwealth. One commenter stated concerns about risks to the public and to the miners from radon emitted from large open pit mines. Specifically, several comments focused on the uncertainties and the feeling that these uncertainties are overwhelming. One participant stated that most uranium mining and milling operated in remote parts of the arid southwest and could not be undertaken safely in Virginia with the geology, the precipitation, and the population density. One participant stated that Virginia has no experience in regulating uranium mining and milling. Another speaker stated that Virginia does not have a good history of planning to prevent discharges.

One speaker acknowledged that any environmental assessment conducted by the U.S. Nuclear Regulatory Commission will take several years. This speaker believed that uranium mining and milling could be conducted safely in Virginia considering the population density and geology.

Economic Comments, Concerns, and Questions

Several speakers expressed concern on the affects to property values in the vicinity of an operating mine and/or mill. One participant stated that property owners would be unable to sell their property if it were located within 30 miles of a uranium mining and milling operation. Several comments were provided on the negative impacts of the perception or reality of contaminated produce and livestock. In addition to the comments about the potential impact on agriculture, participants expressed concern that uranium mining and milling would negatively impact tourism and stated that both agriculture and tourism are key segments of the economy in Virginia and asked who would compensate producers for their losses.

One participant felt that there is no state funding for project implementation and research, which would help determine the public and environmental health risk of uranium mining and milling. One participant questioned if the taxpayers would have to pick up the costs of remediation should a company or facility go bankrupt. Several speakers stated that if the moratorium is lifted, operations may work their way up the Piedmont corridor and have wide ranging economic affects. One participant stated simply “There is no public gain, and huge losses.”

Geology and Hydrology Comments, Concerns, and Questions

Many comments and concerns related to geology and hydrology. One participant referenced the shallow water table and wondered how any operation would avoid contaminating the groundwater. This participant referenced a similar situation in Germany that was costly to clean up and stated that pit mining cannot be done safely in Virginia. Several speakers commented the water in Virginia is a limited resource and stated that all surfaces sources are being used and the underground sources for water are being explored. Concerns about the effects of Virginia’s net precipitation climate on uranium mining and milling operations were mentioned by several participants. One commenter stated that Virginia receives 45 inches of rain each year, and asked if an efficient tailings pond could contain this amount of annual precipitation. Another participant asked how groundwater movement will behave during the operation of a uranium mine and mill.

Baseline Testing and Monitoring Comments, Concerns, and Questions

Several participants expressed concern that baseline testing and monitoring of surface and ground water should be conducted now. One participant stated that there is no history of a baseline for water quality and a baseline needs to be collected. Another speaker stated that these same questions were being asked 30 years ago, and that his answer then and now is that the Commonwealth needs to collect a baseline for naturally occurring uranium. The speaker suggested that lifting the moratorium on uranium mining and milling should not even be considered until the baseline study has been completed, stating that it will take 30 years to collect the necessary data.

One speaker stated monitoring needs to be continuous, at multiple locations, and needs to be done into perpetuity. The same speaker asked what would be monitored and what would be reported? This speaker also stated that in the event of a release the public should be notified immediately with information on the amount of contamination released. Another speaker requested monitoring of all uses, such as domestic, agricultural, and recreational. Several speakers mentioned all types of media and stated that air, soil, and all water sources (public and private) need to be monitored.

One speaker recounted the story of being asked to lease his land for uranium mining and/or milling. He took a trip to the west to visit other operations. He stated that in one location, the radon gas from the mine excavation could be detected within 30 miles from the site. Another speaker, a licensed radon inspector, stated that radon is a Class A carcinogen and is one of the main causes of lung cancer and therefore, will need to be monitored.

Water Quality Comments, Concerns, and Questions

Many of the participants voiced concern over the potential impacts that a uranium mine and mill would have on quality and quantity of both surface water and ground water. One participant stated that there will be irreversible damage to all water sources and supplies in Virginia and potentially, downstream in North Carolina for all uses of the water, including human, agricultural, and recreational. One speaker stated that seepage from the operations would cause damage to the watersheds and inquired who would pay for conservation of the watersheds? This speaker further stated that the Commonwealth does not pay for it now.

Concerns were expressed about potential contamination of public water supplies and the concern that there are/would be no plans for mitigation and monitoring. With regard to public water supplies, one speaker challenged VDH to identify 5 places with similar population density, geology, and net precipitation climate to Virginia where uranium mining and milling has been conducted safely. The speaker further challenged VDH to cite one instance where a wet solid waste of any kind has been properly contained for at least 15 years in Virginia.

The speaker previously mentioned, who took a trip to the west to research uranium operations, stated that he talked to a rancher who lived near a uranium operation who had a contaminated well, was using the water, and did not know of the contamination.

Operational Comments, Concerns, and Questions

Several concerns were expressed about general operations for a uranium mine and/or mill. One speaker stated that 85% of the radioactive material from processing the uranium ore remains in tailings and would be a continuing source of contamination. Another speaker stated that mining excavations and tailings piles would continually leak radon gas creating a health hazard. One speaker stated that 1 ton of ore yields only 4 pounds of uranium oxide, leaving huge piles of tailings containing much of the radioactive material. One participant expressed concern that uranium mining and milling creates radioactive waste and that no state will accept this waste for disposal. The participant stated that the federal government cannot even agree on how to handle this waste and offered Yucca Mountain as an example.

With regard to the process water ponds, one participant asked how the water would be safely contained. One speaker stated that the methods of processing ore cause contamination; crushing the ore creates radioactive dust and leaching the ore creates contaminated water. One speaker stated that the disposal cells are only designed for 200 years and there is no history or baseline for success. Another speaker asked who would regulate/treat the radioactive waste from treating the processing water.

Catastrophic Events and Operational Failure Comments, Concerns, and Questions

Many of the participants voiced concern that public and environmental health could not be protected from a catastrophic event or operational failure. One commenter noted a history of volatile weather events in the area and referenced the effects of various hurricanes, tropical storms and 1,000-year rain events that have occurred recently. One speaker referenced other disasters such as a 2010 rain event in Tennessee that caused a coal ash spill and the Cedar Bluffs tanker spill and commented on the length of time it takes for the environment clean up and recovery. Several participants expressed concerns that the Coles Hill area could not withstand the storm events without some type of operational failure. Various speakers referenced the differences between the arid southwest and the amount of rainfall in the east, making uranium mining and milling not feasible. One participant asked, “What will define a catastrophic event in the regulations?”

Other General Comments, Concerns, and Questions

Several comments did not fall within the previous groupings and may need to be forwarded to other members of the Uranium Working Group for evaluation. Other general comments, concerns, and questions included:

* With regard to the fourth question, a safeguard is already in place with the moratorium.
* As the National Academy of Science report stated, if the moratorium is lifted, there will be steep hurdles to cross to cover all aspects of safety.
* Energy independence is important and the Commonwealth should proceed with lifting the moratorium and further the state government will put in place the regulations to do it safely.
* The ½ life for uranium is 100,000 years and there is no assurance that it can be managed in perpetuity.
* There is no evidence that uranium mining and milling can be done safely. There is history of disasters and wasted lands.
* Uranium mining and milling is a clear hazard to people, migratory birds, and other animals.
* Chernobyl, Love Canal, and Fukushima are all events that should be taken note of during the decision making process.
* We can’t even agree on how to balance a budget much less decide on how to handle the radioactive waste produced from uranium mining and milling.
* If a stranger was collecting radioactive material they would be considered a terrorist.
* Economics are the driving force behind this discussion.
* Lifting the moratorium on uranium mining and milling would be a huge disaster that cannot be cleaned up.
* The moratorium on uranium mining and milling was put in place for a reason; there is no evidence that uranium can be mined and milled safely in Virginia.
* Don’t make Virginia an experiment.
* Who is paying for this study?
* People are frustrated with the notice given for the VDH public meetings, and with the questions VDH is asking.
* The 2-minute allotted time was “ridiculous” and too short a time for such a huge decision.
* The public should not bear the burden of considering the questions without having a report or plan on which to comment. The report should be presented to the public first, then ask for comments.

Written Comments

Additional written comments from participants were collected during this public meeting. The following is a summary of those comments received, and a scanned copy of those comments is attached.

* “When you buy a home it is wise to have a radon test conducted to see if radon gas is present in the house. The radon gas typically emanates from the soil opening that was excavated for the house foundation and basement. Uranium mining is nothing more than a 400 to 500 foot deep hole excavated for hundreds of yards, and even miles. Uranium mining tailings are also piled hundreds of feet high and for a mile or more in length. Above ground level. Uranium is radioactive and toxic. It is radioactive and toxic whether it is in the form of dust, is wind blown or in water runoff, open water sources or wells. Property within 30 miles of the mines will not only lose value. Some of these homes will be unsellable. Uranium mining in Virginia is clearly a public health hazard. It is a health threat to our families, livestock, migratory birds, and any living thing. No amount of money or lobbying can make uranium mining in Virginia healthy for our families.”
* “Radiation waste. No state will take the waste. Yuma Mountain has been denied in a desert. Think of Chernoble, Fukishima, Love Canal, SuperFund Sites. West Virginia – Mining. Rust Belt. Do you want that to be Virginia in the future. One thing we know for sure, profits are made in the early days of these sorts of business ventures, the dangers and damages are minimized. Business men and regulators, public officials hide and outright lie about dangers even as disasters unfold. Most recently Fukishima/Japan. There can never be enough money made or profit to pay for 1000,000 clean up. Our nation is only 260 years old and we can’t agree on how to get anything done. We have no money public works, Superfund sites from the 80s are now just being addressed. Like Dioxic and Agent Orange in the Passic River, JF. The public pays the costs and endures the damages, the birth defects, illness and deaths. Finally with radioactive materials under discussion there is a strange analogy: If a foreign national was known to be preparing to release nuclear/radioactive material into our air and water he would be arrested under the Terrorist Acts investigated by Homeland Security. Yet it seems we have a homegrown terrorist in the Governor of Virginia and mining interests preparing to knowingly proceed on a plan that will release a “dirty bomb” of radioactive materials into our air and water not just once, but on an ongoing basis for thousands of years to come. We can’t stand by while this happens. We must act to stop this. KEEP THE BAN Human experiences with radiation are only 60 years for something that LASTS 100,000 1 million years. Its hard to imagine that we are ready to allow this mining in our state, with long term health and economic dangers.”
* “I’m very concerned about our wells and the possibility of our ground water becoming contaminated should uranium mining be allowed in Virginia. We live on a family farm raising cattle. I’m worried about the weather in Virginia being totally unsuited for uranium mining. We get a lot of rain and the thought of our surface water getting contaminated is a real threat. Please, please protect and keep us safe.”
* “Several comments tonight (8/15) addressed public water supplies. The concern is not just regulation. Yes, VDH has regulations for public water supplies. But I think a high-level concern is RESPONSE should these become contaminated. Thanks.”

Conclusion and Next Steps

At the conclusion of the meeting Dr. Maureen Dempsey, Chief Deputy Commissioner for Public Health, urged participants to continue to ask questions and make comments through mail or through the UWG website and stated that no decisions have been made. Dr. Dempsey provided the schedule of future meetings and closed by thanking those in attendance for their participation.

The comments, concerns, and questions captured during the meeting were used by the facilitator to further discussion at the day-long discussion meeting in Warrenton the following day.