## **Questions from Representative McEachin (D-VA)**

1. Dr. Rock, we often speak about uranium mining as though it is something in the past, but your testimony makes it clear that, like many environmental justice issues, past uranium mining is having very real impacts on your community today. Can you tell us the impact uranium mining has had, and continues to have, on your life and the lives of your friends, family, and community?

The impact that uranium mining has had on me has been multi-generational, and I fear that it is a legacy that will continue for our children and grandchildren if we do not act and learn from the past. One whole generation of my elders is gone. They all were involved in uranium mining activities. The cancer incidents with my relatives started off with my grandfather. Once he died, there was a domino effect. In one episode, we buried two relatives, two days apart. The number of my relatives that passed due to cancer took a significant toll on my living relatives. Some will not come to the funerals anymore.

The second generation of my relatives that were exposed to the after-affects of uranium mining are now dying of cancer. We buried one family member last year and have another uncle dying of cancer. I am the third generation exposed, and I think about when my turn might be. I figure with the time I have, I am going to do what I can to stop this legacy from passing down to the next generation.

One of my friends is from Cane Valley, Utah, one of the places mining companies set up shop during the Cold War and then, when the price of uranium dropped, the companies packed up and left open mining pits and piles of radioactive waste. To this day, an unknown amount of groundwater contamination continues to poison the mostly Navajo community. My friend is a single mother raising her children. She was diagnosed with kidney cancer. She lost one kidney and was able to survive cancer through chemotherapy. However, the cancer came back, and she is battling cancer again. She drives three and a half hours to get to her treatment. She breaks down every now and then. She has to explain to her oldest daughter what to do in the contingency that she's not around anymore.

I had a friend from Sanders, Arizona whom I went to undergraduate with at Arizona State University. She joined the Army and became a Gulf War veteran. She also got her bachelor's degree and got married. She got breast cancer when she was in her late thirties. She continued working as a high school teacher at Valley High School in Sanders, Arizona. She beat cancer the first time, but she passed away to an aggressive cancer that came back this past winter. She told me of how many relatives she witnessed passing away from cancer. She left behind her husband and her kids.

In doing environmental health research, I hear stories like this all the time. I hear people's helplessness and frustration. I have a Sioux Uncle and grandmother in South Dakota that told me what past uranium mining did to their community in Pine Ridge as well. I understand where they are coming from and how they feel. This was my motivation to pursue a PhD degree, to prevent this harm from continuing indefinitely and to heal my community, my reservation, and other tribes that are going through what I have gone through.

Representative Gosar seemed intent on making the point that Navajo life expectancy has increased over time, but for people in the public health profession it is equally important to compare life

expectancy across groups. On average, life expectancy for a Navajo tribal member is 4.2 years shorter than the overall U.S. population. The mortality rate of Navajos is also more than 31% higher than the U.S. rate. A markedly higher mortality rate such as this is often interpreted as a limited access to healthcare or a poorer standard of healthcare available. Along these lines, the U.S. Commission on Civil Rights has reported that "the federal government's rate of spending on healthcare for Native Americans is 50% less than for prisoners."

2. Dr Rock, you speak in your testimony that a comprehensive cleanup of uranium mining operation is a "near impossibility". What does Congress need to do to help with that effort? How can we ensure we're meeting the needs of a community when we are addressing these inequities?

First and foremost, Congress can help to prevent this kind of devastation from happening again by preventing future mining where lives and sacred lands and waters are at risk. While the Trump Administration barrels forward in a short-sighted attempt to open up national monuments such as Bears Ears and Grand Staircase Escalante to appease extraction industry executives, the uranium waste and residue produced by mining activities will negatively impact our community for generations.

With the anticipated announcement from the Trump Administration today establishing a quota for domestic uranium sources, it is more crucial than ever that Congress uphold the intent of the presidential proclamations that established Bears Ears and Grand Staircase Escalante. Both the ANTIQUITIES Act of 2019 (S. 367) introduced by Senator Udall and the BEARS Act of 2019 (H.R. 871) introduced by Representative Gallego would correct the illegal attempts of the Trump Administration to open up these remarkable landscapes to mining companies single-mindedly focused on profits.

From an Indigenous perspective, a comprehensive risk assessment looks at much more than simply how we would use our environment for profit. Our communities use the whole environment for food, medicinal purposes, and ceremonies. That is why I mentioned the importance of applying a holistic risk assessment when cleanup is underway. Since I sit on the Dine' Uranium Remediation Advisory Commission for my tribe, I hear company representatives saying we are on a deadline, and we cannot incorporate this holistic risk assessment for the cleanup. I understand they are on a deadline and proper cleanup costs money. However, this is where we live. We did not ask for uranium mining in the first place. Having a holistic risk assessment with an Indigenous community representative that knows their culture and traditions will help in assuring that the pathway of exposure is limited. Without this holistic risk assessment, it would be like putting a band-aid on a wound that is enormous.

The uranium mines on Navajo lands have been abandoned for about 70 years now. Uranium contamination is widespread due to the negligence of mining companies and the slow reaction of the federal government. I have seen uranium ores in washes downstream from past uranium mining. A good example is Monument No. 2 in Cane Valley.

Some research is going on right now to understand the extent of the uranium contamination in the region organized by researchers from Northern Arizona University and the University of New Mexico. Northern Arizona University is looking at traditional Indigenous food contamination, which

is a new line of inquiry. Our communities still gather vegetation from the landscape for food, medicine and as a heating source, in the way our ancestors did. We are only now asking if our medicinal and ceremonial plants are another pathway of exposure. This is why holistic risk assessment is critical when it comes to Native Americans and the clean-up of uranium mines.

The change of the General Mining Act of 1872 would be great as well. This mining law has not been amended to where it is applicable to today's environmental standards. This could address the need for comprehensive clean-up and allow for public health considerations.

It's also crucial that mining companies set money aside for clean-up before the mining activities begin. For instance, having the mining companies put money in the Superfund program as a requirement of the mine permit. In this way, we could avoid the routine bankruptcies that some corporations use to avoid responsibility for clean-up and ensure accountability for environmental damage and community endangerment. I say this because there are currently 15,000 abandoned uranium mines in the West. The American people should not be required to pay for the cleanup of these abandoned uranium mines. Instead, extraction companies should be held responsible for the remediation of their actions.

Thank you,
Tommy Rock, PhD
Member of the Dine' Uranium Remediation Advisory Commission