

To:

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From:

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Re:

Public Comments on re-write of Michigan's mining rules and regulations, particularly concerning uranium mining

Date:

Dec. 19, 2005

Public Comments:

NIRS/WISE is the information and networking center for citizens and environmental organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy issues. On behalf of our members in Michigan and throughout the Great Lakes Basin downstream and downwind from proposed future uranium mining in Michigan's Upper Peninsula, we submit the following comments. We request that our comments be entered, in their entirety, in the official public record.

It has very recently come to our attention that CAMECO and Bitterroot are prospecting for uranium in Michigan's Upper Peninsula. Exploratory drill holes have apparently already been sunk. We respectfully request a 180 day extension to the Dec. 19

public comment deadline so that the residents of Michigan, and the environmental and public interest organizations that speak on behalf of hundreds of thousands of Michigan residents, have more time to review proposals for uranium mining in Michigan, and to formulate comments regarding the grave dangers risked by such activities.

NIRS/WISE is very concerned about the threats to public health and the environment that uranium mining in Michigan's Upper Peninsula represents. 40 million people depend upon the Great Lakes for drinking water. Uranium mining threatens the waters of the Great Lakes with radioactive and toxic chemical contamination. For this reason, NIRS/WISE requests that the State of Michigan ban uranium mining as too great a threat to the precious waters of the Great Lakes Basin.

Cameco -- and the companies from which it originated, El Dorado and Saskatchewan Mining Development Corporation -- have a sordid history of worker endangerment, public health impacts on neighboring residents -- most especially indigenous peoples -- and environmental ruination. For example, Cameco has come under fire for mismanagement at McArthur River uranium mine, the largest in the world. Its on April 6, 2003 the mine suffered a cave-in and flood with radioactive water. MiningWatch of Canada has reported that:

<<Cameco representatives admitted that consultants' reports had warned of the possibility of a cave-in and major "inflow" and that they had inadequate pumping and water treatment capacity and no contingency plans. They also admitted that their internal geology and engineering used non-standard methodology and therefore couldn't be analysed and compared to standard mine practice.

According to CNSC staff, workers' radiation exposure was within guidelines, and no contaminated water was being released without treatment and testing. It turns out that this was more by good luck than good management. A series of [reports](#) by CBC reporter Dan Kerslake showed how Cameco had known about the danger of a cave-in for months if not years and how "miners worked without ventilation masks to save the mine and their jobs."

According to Keewatin Visions, a miners' group, CNSC staff were at the mine site within a few days of the event, but they did not go underground. They also reveal that miners installing bulkheads to contain the water flow were not informed that radon levels were 0.2 working levels (WL) between the bulkheads, but reached 28.9 WL downstream of the bulkheads and 129.6 WL upstream.

It was also revealed that the company had steel emergency doors had been previously fabricated but were left in storage at the company's Key Lake site and never installed.

Standard mining practice is that a mine should have pumping capacity of five times its average inflow, according to Keewatin Visions. If this capacity had been in place there would have been no risk to the miners. Nevertheless, Cameco's upgraded pumping capacity still falls short of this standard, with a capacity of barely twice the average inflow.

According to Keewatin Visions, dirty water was inadvertently pumped into the clean water line; as a result, miners experienced high radon exposures whenever they washed the floor in the refuge station or washed their hands.

Cameco's excuse is that they had mined in the danger zone before, and they thought they could continue without taking precautions like installing extra pumping capacity or preventive measures like freezing the ore before drilling into it.

Given past experience, we expect the CNSC to approve the licence without any more stringent conditions.>>

[Accessed at

http://www.miningwatch.ca/index.php?/Cameco/Cameco_McArthur_R_spill

on Dec. 19, 2005.]

In addition, Cameco decided to breach a dike separating its mined-out Collins Bay A-Zone pit from Wollaston Lake itself, despite objections from environmental organizations and local First Nation residents concerned about possible radioactive and toxic chemical contamination of the environment. [See http://www.miningwatch.ca/index.php?/Cameco/Nuclear_Safety_Commi For more information.]

Uranium mining's adverse impacts are well documented, both in the Great Lakes Basin and beyond. See, for example:

--[This Is My Homeland](#), Edited by Lorraine Rekmans, Keith Lewis and Anabel Dwyer. Published by the Serpent River First Nation, 2003 (this book is especially relevant, in that the Elliot Lake uranium mines in Ontario on the north shore of Lake Huron have caused severe radiological and toxic chemical contamination to the lands, waters, wildlife and peoples – particularly First Nations peoples, and also including Michigan residents – living downwind and downstream, important lessons about the harms that would very likely result from mining uranium just to the west in Michigan's Upper Peninsula);

-- [If You Poison Us: Uranium and Native Americans](#) by Peter H. Eichstaedt, Red Crane Books, 1st ed edition (September 15, 1994). Note that the Navajo Indian Nation has recently banned uranium mining on its sovereign territory. Please see an article I wrote, NAVAJOS "CHOP THE LEGS OFF URANIUM MONSTER," concerning this, attached below;

-- [Poison Fire, Sacred Earth: TESTIMONIES, LECTURES, CONCLUSIONS, THE WORLD URANIUM HEARING, SALZBURG, Austria, Sept., 1992](#) (see <http://www.ratical.org/radiation/WorldUraniumHearing/>);

-- <http://www.wise-uranium.org/> gives an in-depth analysis of uranium's dangers, including the mining of uranium.

We note with concern that uranium mining often harms indigenous peoples the worst of all. Tragically, this would be true in Michigan's Upper Peninsula, as well. For example, the Keweenaw Bay Indian Community has treaty rights to the lands and waters of Michigan's Upper Peninsula. This federally-recognized sovereign nation's rights and health, both for this and all future generations, would be put at risk by uranium mining in Michigan's Upper Peninsula. So would that of all the numerous tribes, both on the U.S. and Canadian sides of the border, that depend upon the waters of Lake Superior and the waters of the Great Lakes downstream that would face radiological and toxic chemical contamination by uranium mining in Michigan's Upper Peninsula. Thus, uranium mining in Michigan's Upper Peninsula would violate environmental justice as well as treaty rights, and should be prohibited. Two Native American organizations defending environmental justice against such threats as uranium mining are Indigenous Environmental Network and Honor the Earth; they should be contacted for expert advice on how uranium mining in Michigan's Upper Peninsula violates environmental justice (see <http://www.ienearth.org/> and <http://www.honorearth.org/> for additional information and contact information).

We also note that the International Joint Commission's Nuclear Task Force, which has published an "Inventory of Radionuclides for the Great Lakes" (Dec. 1997) and a "Report on Bioaccumulation of Elements to Accompany the Inventory of Radionuclides in the Great Lakes Basin" (1999) has found radionuclides to be persistent hazards, and, like chemical toxins, has called for their virtual elimination from the Great Lakes. Uranium mining would be entirely inconsistent with a policy of zero discharge of radioactive poisons into the Great Lakes.

The U.S. National Academy of Sciences, in its BEIR VII report on the Biological Effects of Ionizing Radiation, re-confirmed that no dose of radiation, no matter how small, is safe. That is, all radiation doses, no matter how small, damage human health. This finding argues in favor of a ban on uranium mining in Michigan's Upper Peninsula. Please see <http://www.nirs.org/radiation/radhealth/radhealthhome.htm> as well as the article "U.S. RADIATION PANEL: NO RADIATION DOSE SAFE" attached below.

Thank you for considering our comments. We look forward to working with the Michigan Department of Environmental Quality to prohibit the dangerous practice of uranium mining from the heartland of the precious Great Lakes.

Attachments:

published by WISE/NIRS Nuclear Monitor on May 13, 2005

NAVAJOS "CHOP THE LEGS OFF URANIUM MONSTER"

Diné Bidzii, Diné Citizens Against Ruining our Environment (Diné CARE), Eastern Navajo Diné Against Uranium Mining (ENDAUM), and allied groups have achieved a hard-won, long-awaited victory: a ban on uranium mining, milling, and processing on the vast Navajo lands in Arizona and New Mexico.

(627.5686) NIRS Washington - On April 19, the Navajo Nation Council passed the Dine Natural Resources Protection Act of 2005 (DNRPA), which bans uranium mining and processing anywhere in Navajo Indian Country, by a vote of 63-19 (1) and on April 29 the uranium moratorium was signed by Navajo Nation President Joe Shirley Jr. (2)

As amended by the Council during floor debate, the act states, "No person shall engage in uranium mining and processing on any sites within Navajo Indian Country." The law is based on the Fundamental Laws of the Diné, which are already codified in Navajo statutes. The act finds that based on those fundamental laws, "certain substances in the Earth (known as doo nal yee dah) that are harmful to the people should not be disturbed, and that the people now know that uranium is one such substance, and therefore, that its extraction should be avoided as traditional practice and prohibited by Navajo law." (3)

"This legislation just chopped the legs off the uranium monster," said Norman Brown, president of Dine Bidzill. Traditional Navajo stories speak of monsters sleeping beneath the Earth that should not be awakened, for if they are, they will unleash destruction. (4) The Navajos have 65 years of experience of just how monstrously destructive uranium is.

Uranium mining, milling and processing began on Navajo and Pueblo Indian lands in the 1940s and 1950s as part of the "Manhattan Project" to create the atomic bomb and to fuel the nuclear arms race, and continued for many decades. Large numbers of Native Americans were hired as underground and aboveground miners.

"Though the toxic effects of radiation were known to government officials, no one did anything to protect the Navajo miners," said Cora Maxx-Phillips of the Office of the President and Vice President of the Navajo Nation. "Our people toiled day and night in the mines without face masks, ventilation or clean drinking water. They breathed the radioactive dust and drank contaminated water, and later paid with their lives and their land." (5)

Radioactive and toxic, uranium mine and mill wastes have been carelessly dumped across the Navajo Nation by the nuclear industry and the U.S. federal government. As on other Indigenous lands such as at Serpent River First Nation in Ontario, Canada and Laguna Pueblo, New Mexico (site of the world's largest open-pit uranium mine, in the midst of a community), these uranium wastes blow with the wind and flow with the water, contaminating the air, ground and surface waters, and soil. In the late 1970's, one of North America's worst ever radiologic disasters occurred when a uranium waste settling pond earthen dam burst, spilling vast amounts of radiation and toxins into the Rio Puerco, the sole source of drinking water for Navajo shepherds in a region of western New Mexico. Not only miners, but also local Navajo residents, have suffered the inevitable health consequences from uranium extraction and processing.

"It's very simple, uranium kills," said Navajo Nation Council delegate Mark Maryboy during the debate on the measure.

"The Dine Natural Resources Protection Act evolved from former [Navajo Nation] President Zah's 1992 uranium mining moratorium and President Shirley's public statements opposing new mining," said ENDAUM spokeswoman Lynnea Smith. "It reflects the overwhelming sentiment of the Navajo people to resist new uranium mining and address the lingering effects

of past mining, as reflected in a resolution adopted by nearly 350 people at the July 19, 2003, citizens' uranium conference in Shiprock [New Mexico]." President Shirley signed the law in front of the Crownpoint Chapter House water station, from which thousands of people haul water every year. ENDAUM members and supporters held a banner reading "Water Is Life."

President Shirley said "As long as there are no answers to cancer, we shouldn't have uranium mining on the Navajo Nation. I believe the-powers-that-be committed genocide on Navajoland by allowing uranium mining. I don't want to subject any more of my people to exposure, to uranium and the cancers that it causes. I believe we reinforced our sovereignty today."(2)

Mitchell Capitan, president of ENDAUM, began his work against uranium mining a decade ago to protect the precious water of Navajo country against the harmful health effects of uranium and radiation exposure that were already so well known and documented. "I feel like the eyes and ears of the people have been opened," Capitan said. "There are many people who are suffering from the effects of uranium mining. I don't know if the federal government will ever be able to compensate us."(2) Expressing his joy at the signing of DNRPA, Capitan added, "I can always tell my grandchildren that I did something to protect them, something that I am proud of."

In addition to its gratitude to the Navajo President and National Council, ENDAUM gave special praise to the Southwest Research and Information Center and its long-time representative, Chris Shuey.

Norman Brown of Dine Bidzill said thousands of Navajos are still affected by uranium-caused cancers and need help through the federal Radiation Exposure Compensation Act (RECA) amendments now before the U.S. Congress. "Hundreds of mines still sit open to the wind and air," Brown said. "I have witnessed our elders crying and families pleading for some type of relief from the many cancer deaths that continue daily across our great Navajoland."(2)

Navajo President Shirley is working with U.S. Congressman Tom Udall, a Democrat of New Mexico, to block a provision in the U.S. House of Representatives energy bill for US\$30 million in federal taxpayer subsidies for "in-situ leach mining" of uranium in New Mexico. Udall's amendment to block the subsidy was defeated recently on by a 225 to 204 vote, but President Shirley has vowed to continue fighting. (6) "The Diné will not tolerate the risk of being exposed to uranium again," Shirley said. (6) Udall believes the controversial subsidy is not currently included in the Senate version of the energy bill, but it could be added during the House-Senate conference committee. New Mexico's two U.S. Senators, Pete Domenici and Jeff Bingaman, will both serve on the conference committee, so phone calls and letters to their offices urging opposition to in-situ leach mining of uranium would be very valuable.

Grace Thorpe (known as "Woman of the Power of the Wind that Blows Up Before a Storm" or "No Ten O Quah" in the Sac & Fox Indian language), an emeritus board member of NIRS and founder National Environmental Coalition of Native Americans which led the national effort to stop radioactive waste dumps targeted at Indigenous lands, related a Navajo story. The Creator gave the Navajo the choice between two yellow powders, corn pollen and uranium yellow cake. The Navajo chose to live with corn pollen. The Creator then warned the Navajo

that the uranium would unleash destruction if disturbed beneath the Earth. The Navajo have yet again rejected uranium, and reasserted the sacredness of their traditional ways. (7)

Sources:

- (1) "Navajo council outlaws uranium mining," The (Farmington, New Mexico) Daily Times, April 20, 2005
- (2) Navajo Nation press release, April 30, 2005, viewable at <http://www.sric.org/>
- (3) Dine Natural Resources Protection Act of 2005, viewable at www.sric.org
- (4) Navajo Community College museum tour, 1992.
- (5) "Navajos take part in global forum," The Gallup (New Mexico) Independent, May 6, 2005
- (6) "Shirley will ink uranium mining ban," The Gallup Independent, April 30, 2005
- (7) <http://www.nuclear-free.com/english/res.htm>

Contact: Dine CARE (Citizens Against Ruining Our Environment) at <http://dinecare.indigenousnative.org/> or: ENDAUM (Eastern Navajo Dine Against Uranium Mining) at <http://www.endaum.org/>

published by WISE/NIRS Nuclear Monitor on July 15, 2005

U.S. RADIATION PANEL: NO RADIATION DOSE SAFE

A panel from the U.S. National Academy of Sciences (NAS) charged to investigate the dangers of low-energy, low-dose ionizing radiation has concluded, "that it is unlikely that a threshold exists for the induction of cancers... Further, there are extensive data on radiation-induced transmissible mutations in mice and other organisms. There is therefore no reason to believe that humans would be immune to this sort of harm."

(632.5701) NIRS - In addition to this, the Biological Effects of Ionizing Radiation Report VII (BEIR VII) also made the following conclusions:

- That background radiation, excluding radon, is responsible for 1 cancer incidence in 100 of us. That equals 60 million people worldwide.
- That the risk from exposure to radiation allowed at the regulatory limit would also induce approximately one cancer in 100 members of the public exposed over a 70-year lifetime. For workers the allowed risk is 1 in 4 at the allowable limits over a 50 year occupational life.
- That the risk of getting cancer is about 35% higher than current official risk figures used in the united states predict.
- That x-rays may be 2-3 times more dangerous than other forms of radiation, meaning that CT scans would generate about 1 cancer per 300-400 procedures.

The panel was given its charge in 1999 and in June of that year, over 120 groups and individuals signed a letter to the academies voicing concern about the composition of the BEIR VII committee.

The letter warned that the composition of the panel was unbalanced and, in fact, contained many individuals who had prejudged the issue of radiation and health to conclude that radiation was less damaging than current regulatory assumptions stated. Many of these individuals were either employed by the nuclear industry in some capacity or had loudly proclaimed their views.

None of the panel members had advocated making radiation standards more protective and NAS had failed to invite any individuals who had been recommended by citizens' groups to participate up to that point. Because of this imbalance, the letter warned of potential Federal Advisory Committee Act (FACA) violations committed by the Academies.

Some of the more ardent and publicly pro-nuclear individuals were removed from the panel, but many individuals who felt low doses were less harmful, and that a threshold was possible, remained ensuring that the panel was still unbalanced. Even with this questionable panel composition, the committee could not ignore the current body of scientific studies that are now recognizing harmful and hitherto unpredicted effects at very low doses of radiation.

Citizens groups reminded the panel of these study results and presented persistent, relevant but yet unanswered questions regarding environmental, human, animal health and low-dose radiation exposure.

The panel report falls short in two key areas: first, since there is no safe dose, why should we allow any exposure at all except in cases of individual consent? to allow such exposures dooms a certain number of people to disease, a number of people much higher than allowed for other pollutants. The panel concludes that this one cancer case will hardly be noticed in a sea of "normal" cancer cases.

Which brings us to the second flaw: when pressed, the panel admitted that synergistic radiation effects are barely studied in scientific literature. Therefore our knowledge about how dioxin, cigarette smoke (or other poisons) and radiation interact in the body, are woefully lacking. How, then do we really determine which cancers radiation *helps* to cause as opposed to the ones caused *solely* by radiation? In an increasingly polluted world, this becomes a necessary question.

For a copy of the full BEIR VII report online, visit <http://books.nap.edu/catalog/11340.html>, or see 4-page summary at <http://www.nap.edu/reportbrief/11340/11340rb.pdf>

Thanks to Daniel Hirsch, Committee to Bridge the Gap, for providing information used in this article.

Contact: Cindy Folkers at NIRS, cindyf@nirs.org

One additional resource NIRS/WISE would like to call to the attention of MI DEQ regarding the dangers of uranium mining is: Voices from Wollaston Lake. Resistance against uranium mining and genocide in Northern Saskatchewan, by Miles Goldstick, 1987. This is particularly relevant given Cameco's mining of uranium at Wollaston Lake, Canada and its proposal to mine uranium in Michigan's Upper Peninsula.

Please add this addendum to NIRS/WISE previously submitted comments. Thank you.

---Kevin Kamps, NIRS/WISE