Uranium Mining Poisons Native Americans

Contributed by Jeff Gerritsen
25 February 2009

Nuclear power is often billed as clean base-load electrical energy. However, few if any nuclear power proponents mention the unintended consequences or the externalized costs associated with this technology to support the unsustainable U.S. lifestyle. A crucial part of this story is told by Native Americans.

I have included three shocking, detailed articles outlining these unintended consequences impacting the Native Americans in South Dakota and neighboring states -- in particular the Cheyenne River radiation poisoning from nearby uranium mining impacting the Pine Ridge Indian Reservation.

Regarding the nuclear power industry, unfortunately, I have a "horse" in this race -- my daughter and son-in-law, both engineers working on nuclear power plants. As a parent and activist who looks down the road to future generations, I suspect future historians will regard with contempt our ill-conceived and childish foray into nuclear power. I doubt history will judge us favorably. About some of the conversations my family has, as we are polar opposites -- let's just say the discussions are rather lively!

In the first article, Shelly Bluejay Pierce writes about uranium mining poisoning the Cheyenne River on the Pine Ridge Indian Reservation. This 2007 article's issues have not been addressed (see the present-day update at bottom of this report). The uranium mining wastes have not been cleaned up from the river or surrounding countryside. The second article, written by Charmaine White Face, provides a brief outline of uranium mining -- calling it FACT SHEET: America's Secret Chernobyl.

The last article is an impassioned history, full of painful fact, by the Lakota as detailed in their Bring Back The Way campaign.

While uranium mining tailings and wastes are not high graded into pure uranium, they nonetheless pose a significant health risk that will be with us for many hundreds of thousand years. Is this a legacy you want to leave to our future generations? I would think not! Contact your local, state, and federal representatives and demand action. There must be real clean-up and a stop to the mining, production, and use of these radioactive materials altogether. We must question our power "needs." - JG

Radiation Warning Signs Placed on Cheyenne River

by Shelley Bluejay Pierce, Native American Times Correspondent, July 29, 2007

Radiation warning signs were posted on Wednesday, July 18, 2007 in the small town of Red Shirt, South Dakota which lies on the northwest corner of the Pine Ridge Reservation. Several of these signs were placed warning people of the high nuclear radiation levels found in the Cheyenne River.

Several weeks ago Everitt Poor Thunder, a spiritual and community leader in Red Shirt, asked Defenders of the Black

Hills, an environmental organization, whether the Cheyenne River water could be used to irrigate a community garden. A local well could not be used as it was found to be radioactive and warning signs surround that structure. The water well taps into the Inyan Kara aquifer that also contains the Lakota and Fall River formations, making up an extremely large aquifer of water supplies for many regions.

Residents of Red Shirt occupy a village site that is thousands of years old to the Oglala Tetuwan (Sioux) people. Many have lived here all of their lives, growing gardens with water taken from the Cheyenne River and fishing for catfish, bass, and turtles. In the summer months, the river is used for swimming and other recreational pursuits.

A water sample taken from the Cheyenne River was sent to a laboratory and the results revealed levels of alpha radiation above the Environmental Protection Agency's (EPA) Maximum Contaminant Level. Alpha radiation causes harm when ingested hence the warning signs were placed to warn people of the dangers in the Cheyenne River.

The portion of the Cheyenne River Basin that lies in southwestern South Dakota drains about 16,500 square miles within the boundaries of the state. The area in this basin includes part of the Black Hills and Badlands, rangeland, irrigated cropland, and mining areas. After traversing the western half of the state from southwest to northeast, the Cheyenne River flows into Lake Oahe, a reservoir on the Missouri River.

Previous efforts remove the radiation in the water at Red Shirt have been unsuccessful. Drinking water is piped in, or residents must drive 25 miles to the little town of Hermosa to buy water. The Cheyenne River has dried up approximately one mile from Red Shirt and tests of the river bottom soil by Defenders of the Black Hills are pending. Initial tests using a Geiger counter revealed more than double the amount of normal background elevations for radiation.

South Dakota news reports recently referred to a DENR report and stated that uranium is naturally occurring in that area which is said to account for the radiation levels in the water.

“If that was the case, there would not have been villages there for thousands of years. There would have been no fish or any aquatic life previously in this river. We sampled the river with nets for aquatic life and found only 2 crayfish and about 10 minnows in more than 100 yards of the river. In essence, it's a dead river. There are two endangered species that use this River: the Sturgeon chubb, a small fish, and the Bald Eagle,” explained Charmaine White Face, founder and Coordinator of Defenders of the Black Hills.

According to published information in the The 2006 South Dakota Integrated Report For Surface Water Quality Assessment the Cheyenne River water quality continues to be generally poor. The lower Cheyenne drainage, in general, contains a high percentage of erodible cropland and rangeland in west central South Dakota. Historical mining records for the state show more than 4,000 exploratory uranium mining holes, some large enough for a man to fall into, in the southwestern Black Hills with an additional 3,000 holes just 10 miles west of the town of Belle Fourche, SD. These mining holes go to depths of 600 feet.

At a meeting for the Defenders of the Black Hills on Feb 26th 2005, discussions centered on the radiation levels in some areas reported at a staggering 1,400 times higher than the ordinary background radiation on the Grand River in the Cave

Hills and the adverse affects to the villages on the Standing Rock Indian Reservations. Also discussed was the high proportion of cancer related illnesses and birth defects especially in the small community of Rock Creek.

“There are also hundreds of abandoned uranium mines in Wyoming whose runoff comes down the Cheyenne River, and also 29 abandoned mines in the southwestern Black Hills, all upstream of Red Shirt Village. One of the largest open-pit abandoned uranium mines in the southern Black Hills is a square mile and its runoff goes into the Cheyenne River,” explained Charmaine White Face.

Most recently, a Canadian mining company, Powertech, began drilling uranium exploratory wells in the Dewey Burdock area northwest of Edgemont. Defenders of the Black Hills battled in court against the drilling permit allowing Powertech to drill 155 more exploratory wells at depths of 500-600 feet in the southwestern Black Hills but the Courts allowed the drilling after denying the appeal. Powertech currently has 4,000 uncapped, and unmarked uranium exploratory wells drilled previously. The mining company plans on doing In Situ Recovery (ISR) of uranium from the Lakota and Fall River aquifers. In Situ Recovery was formerly known as In Situ Leach (ISL) mining.

During the ISR process, a solution to dissolve the uranium is poured down the wells and the dissolved uranium brought back up to the surface. The uranium is separated from the remaining radioactive waste solution that is then reinjected into the aquifer after being held in waste ponds on the surface.

According to Powertech's mining application, each exploratory drill hole "will have a small excavated mud pit that will be approximately 12 feet by 5 feet" and 10 feet deep.

Among the concerns of the environmental groups are the possibility of overflow from the mud pits with the sudden rain showers that occur in the Black Hills. One of the aquifers empties directly into the Cheyenne River and is used by many ranchers to water their livestock. Among the deeper aquifers of concern is the Madison that provides water for many western South Dakota communities.

“A list of uranium mining facts provided online by our organization, Defenders of the Black Hills, reveals a long history of abuses regarding uranium and coal mining in the Upper Midwest region. In an area of the USA that has been called “the Bread Basket of the World,” more than forty years of mining have released radioactive polluted dust and water runoff from the hundreds of abandoned open pit uranium mines, processing sites, underground nuclear power stations, and waste dumps. Our grain supplies and our livestock production in this area have used the water and have been exposed to the remainders of this mining. We may be seeing global affects, not just localized affects, to the years of uranium mining” concluded Charmaine White Face.

In another article by Charmaine White Face, she provides a brief outline to uranium mining -- calling it America's Secret Chernobyl [below]. The term Chernobyl has an interesting origin. In Russian, Chernobyl translates to Wormwood. Wormwood relates to several aromatic plants of the genus Artemisia, especially A. absinthium, native to Europe, yielding a bitter extract used in making absinthe and in flavoring certain wines -- that is adds a bitter taste. In classical literature, wormwood was metaphorical for bitter sorrow. When history writes its review of our foray into nuclear power, will we be regarded with "bitter sorrow"?

Uranium Mining and Nuclear Pollution in the Upper Midwest:

F A C T S H E E T

America's Secret Chernobyl

By Charmaine White Face, Coordinator

Defenders of the Black Hills

1. Uranium mining in South Dakota, Wyoming, Montana, and North Dakota began in the middle of the 1960s. World War II, which ended with the nuclear bomb, introduced the use of nuclear energy for the production of electricity and caused the price of uranium to rise. As the economy of the Midwestern states depends primarily on agriculture, when uranium was discovered in the region, many get-rich-quick schemes were adopted. Not only were large mining companies pushing off the tops of bluffs and buttes, but small individual ranchers were also digging in their pastures for the radioactive metal. Mining occurred on both public and private land, although the Great Sioux Nation still maintains a claim to the area through the Fort Laramie Treaties of 1851 and 1868.

2. In northwestern South Dakota, for example, the Cave Hills area is managed by the US Forest Service. The area currently contains 89 abandoned open-pit uranium mines. Studies by the USFS show that one mine alone has 1400 mR/hr of exposed radiation, a level of radiation that is 120,000 times higher than normal background of 100 mR/yr. There are no warning signs posted for the general public anywhere near this site! It is estimated that more than 1,000 open-pit uranium mines and prospects can be found in the four state region from a map developed by the US Forest Service.

3. The water runoff from the Cave Hills abandoned uranium mines empties into the Grand River which flows through the Standing Rock Indian Reservation. Three villages are located on the Grand River and their residents have used the water for drinking and other domestic purposes for generations. One village still uses the water for drinking and domestic purposes. The water runoff from the Slim Buttes abandoned uranium mines empty into the Morreau River which flows through the Cheyenne River Indian Reservation. Four villages are located on the Morreau River; however no data is currently available about their use of the Morreau River water. Both of these rivers empty into the Missouri River which empties into the Mississippi River.

4. The following agencies are aware of these abandoned uranium mines and prospects: US Forest Service, US Environmental Protection Agency, US Bureau of Land Management, SD Department of Environment and Natural Resources, the Bureau of Indian Affairs and the US Indian Health Service. Only after public concern about these mines was raised two years ago did the USFS and the EPA pay for a study of one mine this year, 2006.

5. In Southwestern South Dakota, the southern Black Hills also contain many abandoned uranium mines. Nuclear radiation near Edgemont, SD, has already polluted the underground water of the Pine Ridge Indian Reservation according to a study completed in 1980 by Women of All Red Nations. The US Air Force also used small nuclear power plants in their remote radar stations and missile silos which number in the hundreds in this four State region. No data is available on the current status or disposal of these small nuclear power sources.

6. More than 7,000 exploration holes for uranium have been drilled in the southwestern and northwestern Black Hills. More are being planned in Wyoming. These holes go to depths of 800 feet. The exploratory process itself allows radioactive pollutants to contaminate underground water sources. South Dakota currently has no regulations for In Situ Leach mining of uranium.

7. In Wyoming, hundreds of abandoned open-pit uranium mines and prospects can be found in or near the coal in the Powder River Basin. Yet plans are being made to ship more of that coal to power plants in the Eastern part of the United States. Radioactive dust and particles will be released into the air at the power plants as well as locally in the strip mining process. Federal tax dollars totaling more than $2.3 billion dollars as a loan are planned to be given to a private business, the Dakota, Minnesota and Eastern Railroad, to increase the amount of coal hauled to the power plants. Two other railroads currently haul coal out of this area.

8. In 1972, President Richard Nixon signed a secret Executive Order declaring this four State region to be a 'National Sacrifice Area' for the mining and production of uranium and nuclear energy. This is the same area of the 1868 Fort Laramie Treaty territory, the final home of the Great Sioux Nation.

Summary

This Fact Sheet regarding the past uranium mining and small underground nuclear power plants in the Upper Midwest region should give cause for alarm to all thinking people in the United States. This is the area that has been called “the Bread Basket of the World.” It is for this reason that we are bringing this issue to your attention. For more than forty years, the people of South Dakota and beyond have been subjected to radioactive polluted dust and water runoff from the hundreds of abandoned open pit uranium mines, processing sites, underground nuclear power stations, and waste dumps. Pollution does not stop at State boundaries so these places generating radioactive pollution to the air and water are also impacting the rest of the United States. Coal tainted with uranium and radiation that has gone and is going to Eastern power plants adds to the total amount of radioactive pollution. There needs to be a concerted effort to determine the extent of the radioactive pollution in the environment, and the health damage that has been and is currently being inflicted upon the people of the United States.

It is imperative that a federal bill be passed in Congress appropriating enough funds for the cleanup of ALL the abandoned uranium mines in this four State region. This harmful situation must not be placed on the end of the Superfund list of hazardous sites to be addressed in twenty years. The health of the nation is threatened. The cleanup of all of these mines and underground sites must occur now! Those responsible for this disaster must face the consequences, but the cleanup and health concerns of the nation need to be addressed first. We hope you will consider our request for concerted actions to be taken at the national level regarding these grave concerns. This problem of radiation pollution spreading throughout the United States has been allowed to quietly continue for much too long.

What you can do:

1. Contact your Congressional Representative and Senators by phone (202) 224-3121, through the mail, and email. Ask that they consider sponsoring a bill for the cleanup of all the abandoned uranium mines and prospects, and underground nuclear sites in the Upper Midwest Region of South Dakota, North Dakota, Montana, and Wyoming.

2. Also ask your Congressional Representatives and Senators to support the Expansion of the Radiation Exposure

Compensation Act (RECA) to include also those harmed by abandoned uranium mines and prospects in the Upper Midwest Region.

3. Include the fact that federal tax dollars should not be used to help a private railroad haul potentially radioactive coal to Central and Eastern power plants. Encourage your Senators and Representatives to tell the Federal Railroad Administration not to give a loan to the DM&E Railroad.

Thank you

Charmaine White Face, Coordinator

Defenders of the Black Hills

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The following report is from Bring Back the Way: Revitalize & Preserve Lakota Way of Life

Crying Earth Rise Up!

“Some day the Earth will weep, She will beg for Her life, She will cry with tears of blood. You will make a choice, if you will help her or let her die, and when She dies, you too, will die.” - John Hollow Horn, Oglala Lakota, 1932

Authors Note: This report is based on the Lakota worldview that Water Is Sacred. Without Water There Is No Life.

For many generations, our Lakota people lived on the plains and followed the stars for ceremony. Our ancient Creation story teaches us that Tunkasila made all of Creation, woman and man and taught us to be a good relative to all of Creation. Mni, Water is a Sacred Gift of Creation. Mni is the Adornment of Mother Earth, Mni is the companion of Woope, the daughter of Tunkasila. Woope is the Law. Mni is our first home, when we arrive here on Mother Earth, the water of our mothers’ womb is our first dwelling. Water is our first medicine. Without water, there is no life. The Spirit of Mni is also in the Star Nation. In the form of steam, the Spirit of Mni enters the Human Body to nourish the Spirit. Mni is part of every daily and ceremonial aspect of Lakol Wicohan, our Lakota lifeway.

After the coming of the white man, and many years of war making, our anacestors- known historically as the Great Sioux Nation-entered into the 1868 Fort Laramie Treaty with the United States.

In the Treaty, our ancestors retained a land base for the Lakota Nation that includes parts of what is currently known as North Dakota, South Dakota, Colorado, Wyoming, Montana, Nebraska, and Canada.

Our Treaty Territory contains our Sacred Land and Ceremonial Sites, and billions of dollars worth of Minerals, Plants, and Water.

Our ancestors and the United States government officials smoked our Sacred Pipe together and the U.S. Congress ratified the Treaty, so our people believe that the Treaty is true and binding, as long as the water flows and sweet grass grows.

Through America's aggressive Treaty violations and the decimation of the Buffalo Nation, the Oglala Lakota were forced onto the reservation. The Pine Ridge Indian Reservation is located in southwestern South Dakota.

The Pine Ridge Reservation was originally known as Prisoner Of War Camp #344.

"Pine Ridge Indian Agency" (The official Bureau of Indian Affairs terminology)

The U. S. Department of the Interior's Bureau of Indian Affairs Census reports that there are now 48,000 Oglala Lakota people, with 25,000 tribal members currently residing on the Pine Ridge. 65% of our population is age 25 and under.

Drinking Water Quality Tests on Pine Ridge

On the Pine Ridge, Drinking Water Quality tests conducted from 1995 to the present by the United States Geological Survey, the Indian Health Service, the Oglala Sioux Tribal Rural Water Program and the Federal Agency for Toxic Substances and Disease Registry (ATSDDR) reveal contaminants in the groundwater.
There are two serious threats to our drinking water, Arsenic, and Alpha Emitters (radiation emitting).

Uranium Mining and Water Contamination -- The Tests Reveal the Contaminants:
- Arsenic

- Combined Radium 226 & 228

- Barium

- Thorium 230 (not naturally occurring)

- other Radioactive Alpha Emitters

Maximum Contaminant Level, the MCL, measures contaminants and tell us the "safe" levels of contaminants.

Since the US Clean Water Act of 1972 drinking water quality is measured for contaminants.

The MCL of Arsenic is 10 as of January 2006. An MCL above 10 is not in the "safe" level under US law.

The Environmental Protection Agency's MCL "goal" for Arsenic level is a measurement of zero, because the EPA cannot determine a true safe threshold level for Arsenic.
Once Arsenic is released into the environment, it cannot be contained. It only changes form.

According to the Indian Health Service Arsenic Tech Team the water quality test results in 2005 on Pine Ridge reveal that 98 wells have Arsenic levels 2 to 12 times higher than the MCL determined by law.

The wells of these families have been capped and their drinking water source has been changed to that of the water piped in from the Missouri River. (Call the Indian Health Service Arsenic Tech Team at 685-6561 to ask for copies of the Arsenic Reports)

In past decades, Open Pit Uranium Mining occurred Northwest of the Pine Ridge in the area of Edgemont, SD on the outskirts of our sacred Black Hills.

The milling of the Uranium took place by the Cheyenne River, which flows to the Pine Ridge. The radioactive waste from that Uranium Mine has since been buried underground for storage.

The area around Edgemont and the Northwest area of the Pine Ridge is over the Inyan Kara Aquifer and the White River Group. The Arikaree Aquifer flows under the center of the Pine Ridge.

The USGS and OST Rural Water tests document that wells and springs from these Aquifers reveal that contaminants of Arsenic, Radium 226 & 228, and Gross Alpha Emitters are higher than the safe and legal Maximum Contaminant level.

Some Alpha Emitters and Arsenic are naturally occurring due to Uranium in the ground, others as a result of mining.

(Call the OST Rural Water Office in Pine Ridge at 867-1999 & ask for copies of their Annual Reports. The complete test results are in their reports)

These wells that exceed the MCL for Arsenic and Alpha Emitters have been closed and the drinking water is now piped in or trucked in to the community.

A summary of the OST Rural Water Reports and Indian Health Service shows that the Alpha Emitters from the following areas exceed the legal MCLs (highend range of composite tests) is on "Test Results" page.

Nuclear Waste Contamination?

Have the nuclear waste tailings from the Uranium mines around the Edgemont area that washed into the Cheyenne River also get into the groundwater, thus traveling for many years underground to get here, under the Pine Ridge, into

the Aquifer we drink from? Did the above ground tailings blow in the wind to our lands here on Pine Ridge? There has never been a definitive study across the reservation to determine possible sources of contamination.

Mni Wiconi Pipeline

The Mni Wiconi water line has only been here for a few years, prior to Mni Wiconi disconnecting our wells and connecting our homes to the pipeline, we drank groundwater for years, some homes that are land-based still drink from the groundwater, as they are not connected to the pipeline. According to the Annual Reports of Rural water, the drinking water they provide is groundwater pumped from 34 wells.

Practically the first sentence of the Congressional Bill which created with Mni Wiconi Program states that “the drinking water quality available to the Pine Ridge does not meet the minimum health and safety standards, thereby posing a threat to public health and safety”.

(Mni Wiconi Act PL 100-516 (H.R. 2772) October 24, 1988 and amended PL 103-434 (S1146) October 31, 1994.

According to the 2003 Health Consultation Report of the Sharps Corner/Porcupine area conducted by the US Federal Agency for Toxic Substances and Disease Registry the private well samples studied in 1999 and 2000 for Radionuclides, the highest MCL detected was 75.9ugL, which is two and half times higher than the legal MCL of 30ugL. The sampling led the ATSDR to conclude that “ Radionuclides were the drinking water contaminant of concern for the Sharps Corner/Porcupine area”.

Of the eight water wells sampled, 50%, or half, of homes MCL for Radionuclides exceeded the EPA’s legal Maximum Contaminant Level for Gross Alpha Particle activity. In the Radon part of the study, the air was measured in these homes. One-third or 30% of the homes were found to have results of Radon above the legal MCL.

The results summarized that the folks in these homes were ingesting radioactivity through the drinking water, as well as being contaminated by Radon through inhalation, breathing it in as it is in their homes. In every one of these homes, at least one family member died from Cancer. The ingestion and inhalation of Radionuclides also has a quicker effect on the kidney--many individuals will suffer kidney damage and die from the effects BEFORE they get cancer.

The USGS recommends further testing of our ground water to determine a better defined source of radioactive contaminants. The tests would separate the source of the contaminants of the naturally occurring Uranium in our groundwater from Gross Alpha Emitters that may have been pulled out of the ground through mining activities, entering the Aquifers. (Call the USGS Office in Rapid City and ask where to purchase copies of the reports)

In a letter addressed to OST President Steele in 2003, Lorelie DeCora responded to his question posed regarding the definition of a contaminant known as “Th-230” that he stated had been detected in groundwater quality tests conducted on the Pine Ridge. The Women of All Red Nations (WARN) Report issued a report in 1980 documenting water quality test results. Thorium 230 is a contaminant that results from Uranium tailings from mining. Thorium can be naturally occurring, but Thorium 230 is not naturally occurring. Thorium 230 will stay radioactive for 154,000 years. After 77,000 years, it becomes half of the value of its’ prior radioactivity. (Thorium 230=Th-230)

In Situ Leach Mining: “ISL”

Substances such as Inorganic Arsenic, Radium 226 & 228, Thorium 230 and other contaminants can enter groundwater as a result of mining. One type of mining that uses water is known as “In Situ Leach Mining”. ISL mining pulls Uranium up from the ground using Aquifer water, extracts the Uranium, stores the water in “monitoring” wells, and eventually injects it back into the Aquifer.

The ISL process also blends the contaminated water with clean Aquifer water to store it in the “monitoring” wells where the Radioactivity is measured after the Uranium is leached out to produce “Yellow Cake”. The water used to pull the Uranium out of the ground is also stored in “evaporation ponds”.

Radioactive Uranium and Barium Sludge Ponds and “monitoring wells” result from the In Situ Leach mining process. It takes almost 5,000 years for this sludge to lose half of its radioactivity, some estimates tell us, other estimate it at a much longer time period.

The ISL process presents the potential for leaks in the pipes that are used to “extract” the Uranium out of the ground. Such leaks would allow the radioactive water to seep out of the pipe and back into the groundwater, this has happened at ISL mines all over the world.

ISL Uranium Mine at Crawford, Nebraska

“In Situ Leach Mining” is presently happening in Crawford, Nebraska at the Crow Butte Resources, Inc. Uranium Mine, which is owned by Cameco, Inc., the multinational energy corporation headquartered in Saskatchewan, Canada.

Cameco, Inc. is the worlds’ largest Uranium producer. This Crow Butte Uranium Mine has spilled or leaked thousands of gallons of contaminated water into our land, air, and ground water.

The High Plains Aquifer that is under the Crow Butte Resources (CBR) Uranium Mine also flows under the Eastern portion of the Pine Ridge Reservation. The High Plains Aquifer contains portions of the Arikaree Aquifer.

The Crow Butte Uranium Mine is auhtorized to use 5,000 to 9,000 gallons of Aquifer water per minute the “In Situ Leach” method.

The CBR has at least three “evaporation ponds” where they store the contaminated water. The ponds are as big as a football field, lined with plastic and vinyl. And filled with radioactive sludge.

The “monitoring wells” where CBR stores contaminated water after the Uranium has been leached out are actually underground cement containers which hold the water for a period of time before it is placed in the “evaporation pond”.

The CBR Uranium Mine produces one million pounds of “Yellow Cake” per year at its processing plant onsite. This “Yellow Cake” is stored in 55-gallon steel drums until transported. “Yellow Cake” is used to power Nuclear Power Plants and to make Nuclear Bombs through production of the world’s most powerful and most dangerous element: Plutonium.

Crow Butte Resources well soon seek renewal of their existing license and is proposing to expand their Uranium Mine north of Crawford, Nebraska, to an area near Whitney Lake and Dam, and the White River. The names of these two satellite ISL mines are the North Trend Area and the Three Crow area. The existing mine currently has 4,000-8,000 wells at Crow Butte.

There is more information regarding the proposed North Trend Satellite Mine, which Owe Aku and others have filed, in November 2007, an intervention asking for a hearing from the Nuclear Regulatory Commission.

ISL Uranium Mining is also planned to occur in the Black Hills area near Edgemont, SD by the Powertech Uranium Company which is now drilling exploratory wells for their proposed In Situ Leach Uranium Mine, and at the Wild Horse Sanctuary near Hot Springs, SD by the Newtron Energy Corporation.

Impacts of Mining on Humans and the Environment

The scientific community has conclusively determined that Inorganic Arsenic and Alpha Emitters are cancer causing to humans. Arsenic and Alpha Emitters are pulled out of the ground during the mining process, entering the groundwater, people drink the groundwater and become contaminated.

There can be a 5, 10, or 20-year latency period of exposure to Arsenic and Alpha Emitters before cancer develops.

CBR proposes 20 more years of Uranium Mining near Crawford, Nebraska. The Cameco, Inc. website states they have “a proven reserve of 60 million pounds of Uranium to extract”.

How much water is that at 9,000 gallons per minute? 24 hours per day, 365 days per year for 20 more years… What will the number of gallons increase to once the two new Uranium Mines are developed and running?

There are about 321 people diagnosed with Diabetes each year on Pine Ridge. Currently, of our 25,000 residents, 10% of our Tribal Members have Diabetes.

What will that number be after 20 more years of mining which has the potential of contamination of our groundwater?

Our people who are Diabetic patients seem to move to the Dialysis stage of the disease quickly, can this be a result of kidney damage sustained over many, many years of contamination of ingesting even low doses of Arsenic and Alpha Emitters?

The homes across the Pine Ridge whose test results revealed an illegal MCL of Arsenic now have filters provided by the Indian Health Service to filter Arsenic out of the water as it comes out of our kitchen faucet to purify the water we drink and cook with, but the water we bath our children in, wash our clothes with, water our lawns with, and shower with is not filtered. The Arsenic is still pouring into our homes.

According to the Indian Health Service official at the Aug 15, 2007 Environmental Health Tech Team meeting, “this shouldn’t be a concern because you have to drink it to be effected by it”. I wonder what scientists from other parts of the world say about that? Western Science is not the only science who studies such matters, a German scientist states he has proof that a low dose over time can have a more dramatic result than previously understood.

With the Crow Butte Resources’ existing mine and two new proposed mines 38 miles to the southeast of Pine Ridge, and the proposed Powertech Uranium Mine 60 miles to the Northwest of Pine Ridge, In Situ Leach Mining for Uranium has the potential to contaminate all of the groundwater our people depend on for drinking water.

The Crow Butte Resources Uranium Mine has had leaks and spills every year since they have been in operation: License Violations at Crow Butte ISL uranium mine (Nebraska) (www.wise-uranium.org)

* Sept 26, 2006: Monitor well placed on excursion status
* May 5, 2006: leak detected at Pond 4
* Jan 19, 2006: Monitor well placed on excursion status
* Oct 27, 2005: Injection well leak detected
* Aug 4, 2005: Monitor well placed on excursion status
* June 28, 2005: Monitor well placed on excursion status
* June 17, 2005: Monitor well placed on excursion status
* May 2, 2005: Monitor well placed on excursion status
* May 14, 2004: leak detected at Pond 1
* Dec 23, 2003: Monitor well placed on excursion status
* Dec 26, 2002: Monitor well placed on excursion status
* Sept 10, 2002: Monitor well placed on excursion status
* April 4, 2002: Monitor well placed on excursion status
* Dec 4, 2001: Monitor well placed on excursion status
* March 2, 2001: Monitor well placed on excursion status
* Sept 10, 2000: Monitor well placed on excursion status
* May 26, 2000: Monitor well placed on excursion status
* April 27, 2000: Monitor well placed on excursion status
* March 6, 2000: Monitor well placed on excursion status
* July 2, 1999: Monitor well placed on excursion status
* Aug 7, 1998: Spill of 10,260 gallons of injection fluid
* March 21, 1998: Monitor well placed on excursion status
* Aug 12, 1997: Discovery of Pinhole Leaks in Upper Liner of Process Water Evaporation Pond

When an ISL well is placed in “excursion status” it is because some part of the pipes or containers or other parts of the apparatus is LEAKING/SPILLING the water/solution/Uranium mix back into the groundwater (Aquifer).

“The most critical part of the ISL process is to control the movement of the chemical solutions within the aquifer. Any escape of these solutions outside the ore zone is considered an excursion, and can lead to contamination of surrounding ground-water systems. Some of the most common causes of excursions, identified by international operations in the United States and across Europe, can be through old exploration holes that were not plugged adequately, plugging or blocking of the aquifer causing excess water pressure buildup and breaks in bores, and failures of injection/extraction pumps.” ("An Environmental Critique of In Situ Leach Mining :

The Case Against Uranium Solution Mining" at www.sea-us.org.au)

Uranium Corporations say that ISL mining is environmentally friendly and safe, but according to researchers in the scientific community, “The ISL technique can lead to permanent contamination of groundwater and can contaminate land which was otherwise good productive land.”

According to news reports in Nebraska, Crow Butte Resources, Inc. experienced such a massive spill of more than 300,000 gallons of contaminated water that the area has been designated as “unfit for future use”—it is now considered a sacrifice area. (Instate News) as they were unable to clean it all up.

How will 20 more years of injecting contaminated water into all of the Aquifers that our people drink from effect our coming generations?

Inorganic Arsenic crosses the placenta and can cause fetal death, it can be detected in Mothers’ breast milk.

Children’s bodies are more susceptible to the damaging effects of Inorganic Arsenic.

Are these contaminants connected to our high numbers of infant deaths? Of infant/children brain seizures? Of Down Syndrome babies born to young mothers? Of babies born with extraordinarily short umbilical cords?

In April 2005 the Oglala Sioux Tribal Council declared a situation of Eminent Threat due to test results of individual and community water wells exceeding the EPA Standard MCL of Gross Alpha Particle Radionuclide and Arsenic.

Oglala Sioux Tribal Council Resolution #2005-46 states that

Indian Health Service negligence in testing for safe drinking water has resulted in tribal members becoming ill.

The Resolution states that: the wells our people were drinking from were declared “Unfit for Consumption” due to illegal MCL’s.

----------Health on the Pine Ridge

Do we need a comprehensive health study on the Pine Ridge?

According to the South Dakota Cancer Report of 2003, counties on the Pine Ridge have a “significantly higher rate of cancer, diabetes, and infant mortality than the SD state average for the time period of 2001-2005”.

SD health records also state that in the “2003 Study, the American Indian cancer death rate was 30% higher than that of whites in South Dakota.”

The state records include the data that from the years “1999-2003 while the cancer death rate decreased for whites in SD, it increased for American Indians”.

For the years “2003 through 2005, the American Indian infant mortality rate increased at almost twice the rate for the white people in South Dakota.”

The report: Cancer in South Dakota, 2003 states “that American Indians had the highest age-adjusted rates for Years of Potential Life Lost” and that “American Indians are dying at a much younger age compared to whites”.

Why is this so?

"An In Situ Leach Mine is a Liquid Radioactive Nuclear Waste Dump.”

The Oglala Lakota People and the people of Nebraska and the surrounding area deserve to be informed about what impacts the Crow Butte Resources, Inc. Uranium Mine and the newly proposed North Trend and Three Crow In Situ Leach Uranium Mines will do to our water, land, people, animals, plants and future generations. The Oglala Sioux Tribe can and should do the right thing: investigate and produce a comprehensive report on this energy company’s violations and investigate how to hold them accountable to the EPA laws and other principles of respect for Mother Earth and our Sacred Water; and to hold the EPA and Federal Government responsible in upholding our Treaty and Human Rights to clean water, land, air, and health conditions based on a clean environment. By passing OST Ordinance 07-40 on August 7, 2007, this is the responsibility Tribal Council made a commitment to. Communities, towns, local governments can create Law that ban any corporate development that will produce toxic waste, can create Law that holds the producer of toxic waste liable, can create Law that acknowledges Mother Earth has a right to be contaminant-free. Interested folks and organizations in and around Nebraska -- or any community who wishes to protect itself from deadly poisons -- can engage in such work.

Indeed, this environmental issue truly goes beyond the boundaries of race, county lines, townships, state borders -- it effects all of life in this area, and can reach far into the future generations of all living things: the two-legged, the four-legged, the winged, the standing silent nation (plants), those that crawl and swim, and our Sacred Water, Sacred Land, and Sacred Air.

For the Lakota Oyate (Lakota People) a clean environment is a matter of life and death. To expose our people to the deadly toxins of uranium mining is a threat to our survival as a people, we have no island from which we can draw more membership, this is environmental racism.

Without Water There Is No Life.

In Speaking of Radioactive Waste:
“They have created something that cannot be destroyed” –Winona LaDuke

On August 7, 2007 the OST passed Ordinance #07-40 which recognizes the responsibility of the OST to protect the land, air, water, and people of the tribe and which criminalizes nuclear contamination on the Pine Ridge and within 1851 & 1868 Ft. Laramie Treaty boundaries.

“No Uranium Mining on Lakota Land”

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Source Materials:

* Oglala Sioux Tribe Mni Wiconi Program Annual Reports 1999-2006 (Rural Water)
* OST Water & Sewer Program Reports
* OST Ordinances and Resolutions OST Archives Office

* Environmental Protection Agency
* Instate News (Nebraska)
* US Geological Study 1992-1997
* Wise Uranium

* Indigenous Mining

* SD Dept of Health & Human Services

* Indian Health Service, Pine Ridge Agency, Aberdeen Area Office

· The Case Against Uranium Solution Mining "An Environmental Critique of In Situ Leach Mining" at www.sea-us.org.au

· Cancer in South Dakota, 2003

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DONATIONS: WE ARE ACCEPTING DONATIONS TO HELP US IN OUR WORK TO PROVIDE AWARENESS AND EDUCATION REGARDING IN SITU LEACH/RECOVERY URANIUM MINING AND ITS EFFECTS ON OUR ENVIRONMENT, PEOPLE, AND FUTURE. YOUR CONTRIBUTION CAN BE MAILED TO: OWE AKU, P.O. BOX 325, MANDERSON, SD 57756

Owe Aku: Bring Back the Way

"We Do Not Inherit Mother Earth From Our Ancestors, We Borrow Her From Our Children." --Crazy Horse

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According to website of the Defenders of the Black Hills, the SD Department of Environment and Natural Resources is making determinations on lands of critical interest to the native peoples. Additionally, the Defenders have recently had to

"...submit comments to federal agencies, tabling at Pow Wows, giving speeches, and attending a hearing in Pierre, SD... (regarding the) Nuclear Regulatory Commission GEIS Comments, Defenders submitted comments before Nov. 7th to the Nuclear Regulatory Commission on their Draft Generic Environmental Impact Statement for areas in Wyoming, South Dakota, Nebraska and New Mexico. Our comments were specific to the area as delineated in the Fort Laramie Treaty of 1868.

Craven Canyon Exclusion from mining - The US Forest Service filed an application with the Bureau of Land Management to withdraw 3,968.7 acres in Fall River County to protect the existing Native American petroglyphs in the Craven Canyon area from damage by mining. The site will be protected for the next 20 years. Defenders submitted comments thanking the Forest Service for their foresight and also supported the withdrawal of the land to protect and preserve this area sacred to many Native American nations.

Presentation given to DIA - Democracy in Action is a women's group located in western South Dakota interested in legislative action. Charmaine (Whiteface) gave a presentation on Nov. 18th and spoke about the need for state and federal legislation. In this region of SD, WY, NE, she recommended a moratorium in SD on further uranium exploration and mining until the 230 open pit abandoned uranium mines and prospects in SD are cleaned up, and the more than 4,000 uranium exploratory wells are filled, capped, and marked.

Three federal bills are needed to protect the public and the environment from further radioactive pollution.

1) A federal bill to monitor and regulate radioactive particles in the smoke from coal-fired power plants needs to be passed by Congress.

2) A federal bill is needed to regulate and monitor radioactive particles in oil.

3) A federal bill needs to be passed to clean up ALL of the abandoned open-pit uranium mines and prospects in the United States, and to seal all exploratory bore holes or wells.

Sources for above articles:

Bring Back The Way: Revitalize and preserve the Lakota way of life

Defenders of the Black Hills

Database: Nuclear power plants and other large nuclear facilities in the United States

Culture Change prior articles:

Why a Nuclear Free World is Important

Nuclear-power bailout blitz can be stopped - And it was!

Nuclear Power - One of Humankind's Biggest Mistakes

Jeff Garritsen is active in Oregon with such projects as Portland Peak Oil, the cable access show TV Set, and Sail Transport Network.