



Presentation to the CNSC Commission at LaRonge, SK., on June 10, 2004

Comments Re; Cigar Lake Project

President Keen, Members of the Commission--- for the record I am Bill Adamson.

I am concerned about the effects of alpha radiation on miners and on the biota. Yesterday, quite a number of comments were made about alpha radiation, but I noticed that Commission members hardly raised any questions or comments about it. I wonder why that was? Did they lack information to ask? Did they not want to hear the answers? I would have thought they would want to read extensively about this vulnerable feature of uranium mining.

Eloquent statements were made about the power of alpha radiation to break the chromosomes and to cause genetic damage. Dr. Whicker has written, "We now have a lot of new tools from molecular biology that can be used to understand ecological impacts better, and my colleagues and I have been trying hard to sell such proposals--but so far without success." (Oct. 8, 2002, e-mail message to Maisie Shiel)

Do you find Cameco, or Cogema or CNSC staff

exploring the use of such new tools of molecular biology? No, not a chance! They do not want to know about the genetic effects. Rather, they brush off Whicker by another general comment which he made in a different context---"that regulators adopted overly conservative approaches to compensate for data paucity." (MS--4)

Cigar Lake with its 21% grade ore will be one of the most dangerous mines in the world. Much of the mining will be done by hydraulic and robotic measures--which efforts are commendable. The ore will be ground and pulverized underground, before being mixed in a slurry to pump it up to the surface. Cant you just imagine what it will be like for the poor buggers who have to service and to maintain those underground grinders after treating that radioactive ore? Will they have radioactive suits and face masks?

The CBC Documentary about the unexpected flood at McArthur River mine showed how the workers were sent in to divert the flow without protective gear---thus incurring extra doses of radiation. The red warning light about excess radon gas was shut off, because it was more important to save the machinery and the mine, than to protect the workers! That is how the system works!

On that Documentary, Dr. Ernest Becker was quoted as saying, "If two miners receive alpha radiation, one may get cancer and the other wont."

Why do you suppose that is? Because alpha radiation is stochastic or random. So, the little dosimeters worn by the miners can detect a blast of alpha, but they cannot tell if a stray, random alpha particle goes down the trachea and into the lungs of a miner. Then it is 12--20 years before the terrible damage is revealed because of the so-called "latency period."

For too long, the Mine Operators and the CNSC have been avoiding, side-stepping, and down-playing the delayed action hazards of the potent little alpha particles. However, the evidence is building up for all of us to take another look. Look

at the variety of studies coming out in various scientific journals.:

1. AECL Employees-- by Howe et al--American Journal of Epidemiology (1988)

--13,570 employees on January 1, 1950
-- 946 deaths in 30 years (1950--1980)
882 males, 66 females

2. Ontario Miners--by Finkelstein & Kusiak et al. Ontario Ministry of Labour (1995)

-- 21,346 male miners
-- 152 lung cancer deaths, 67.6 expected (twice the expected)

3. Beaverlodge Miners-- Howe & Chiarelle & Lindsay

-- 8,487 workers
-- 65 lung cancer deaths, 34.2 expected (nearly twice the expected)

4. Port Radium Mine

--2,103 workers
--57 lung cancers, 24 expected. (twice as many).

So, out of the miners studied and followed, some 1,220 have died from lung cancer---practically twice the number of ordinary or expected cases in a normal population.

Well, there is a Saskatchewan Uranium Miners Cohort Study (CUMCS) ---an interdisciplinary team under CNSC set up to study the health and mortality of Sask. miners over the last 22 years.

Rachel Lane (Epidemiologist for CNSC) tells me that the first 5 years and \$150,000 was spent in polishing and revising the statistics for the Beaverlodge Study. Now they were to focus on the later Sask. miners, but they asked SENES Consultants to test out the feasibility of such a study. The Magazine, Opportunity North (Jan.--Feb. 2004) carried this statement:

"Sene's research concluded that there was only a slim chance that the relatively low numbers of workers, and low known-exposures, could be used to generate a statistically accurate study. Given this, the steering committee committee has opted to look at smoking patterns among uranium miners instead." (p. 3--Northern Mines Monitoring Secretariat)

When I asked Rachel Lane, epidemiologist, what progress or action has been taken since the Consultant's Report, she answered, "I am not at liberty to discuss this with you at this time. A communication targeted at miners, governments, stakeholders and the public will describe the last two years of work, and our decision will be released shortly." (Letter of March 9, 2004)

Yesterday, in the hall, Kevin Scissons said that some kind of a message was going out to miners and families first. But is it not strange that these studies are never quite done in time for a Hearing like this?

If you approve a proposal like Cigar Lake, you see the statistical probabilities you are setting up for the future miners. Have you ever seen a relative or neighbour die of lung cancer? It is a horrible way to go! There are various "Reality Shows" on TV these days. There are some tough realities for the uranium industry to face also.