



## AS WE GO TO PRESS

The April 20, 2009 *Toronto Star* Business Section had a lead article written by Tyler Hamilton, "Looking for a NET GAIN in the energy sector".

<[www.thestar.com/article/621041](http://www.thestar.com/article/621041)>

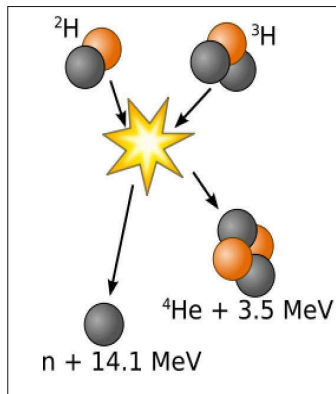
Apparently the scientists at the U.S. National Ignition Facility intend to use their recently acquired 192 massive lasers and aim them at a tiny pellet containing the hydrogen isotopes, deuterium and tritium. If the experiment is a success, the two isotopes will compress, heat up and fuse together to form helium while releasing a tiny amount of split-second energy. Their goal is to get more energy out than they put in.

It is reported that the U.S. Dept. of Energy spent 15 years and US\$4 billion in order to develop these huge lasers. Imagine how much renewable sustainable green energy technology could have been developed with the same amount of money!

Fusion energy is touted as a path to an almost endless supply of clean energy with virtually no radioactive waste. There is a mine of information on the attempts to develop fusion energy in this article. More millions to billions will be needed for research and experimentation. To what avail? Will it be ready to stop the climate change catastrophe that is surely coming in a much tighter time frame than the number of years to perfect this science and build the power plants in countries around the world?

To us, the only answer is to go for green power. See our article, *The Obama Factor and Nuclear Proliferation*. We believe in Green Energy Partnerships not the Global Nuclear Energy Partnership set up by the Bush administration. GreeNEP not NEP.

Marion Odell, Editor



Fusion reaction, as represented on [blewbury.co.uk](http://blewbury.co.uk)

## THE OBAMA FACTOR AND NUCLEAR PROLIFERATION

"The world was not meant to be a prison in which man awaits his execution" - John F. Kennedy

The announcement by President Barack Obama to close down the Yucca Mountain Nuclear Depository raised eyebrows among lawmakers in the U.S. On April 3, at the NATO Summit in Strasbourg, Germany, President Obama pledged to work to stop nuclear weapons proliferation. Obama said, "In Prague, I will lay out an agenda to seek the goal of a world without nuclear weapons" The only statements reported in the media were related to negotiating the reduction of existing nuclear arsenals starting with the U.S. and Russia.

Some reports say that President Obama is likely to scale back the Bush administration's Global Nuclear Energy Partnership (GNEP), as if that would be a bad thing, but is it? GNEP is designed "to seek development of new nuclear technologies and new international nuclear fuel arrangements". Over 21 countries have signed up to this agreement including Canada.<sup>1</sup>

The stated aim is to cut nuclear waste and markedly reduce the risk of an increase in nuclear weapons proliferation from the contemplated growth in nuclear energy plants. However, GNEP is likely to lead to proliferation of present technologies before the newer ones have been developed. There is some question that the newer technologies might even lead to easier manufacture of nuclear weapons.<sup>2</sup>

Obama said in a campaign speech in Jacksonville Florida in June 2008, "I think that nuclear should be in the mix when it comes to energy." He continued with this statement, "I don't think it's our optimal energy source because we haven't figured out how to store the waste safely or recycle the waste."<sup>3</sup>

When President Obama announced the closing of Yucca Mountain, in the face of huge amounts of stranded nuclear waste in many parts of the country, it is no wonder that nuclear proponents may have been left gasping for air!

GNEP aims to build a taxpayer funded reprocessing plant for spent nuclear fuel, even though reprocessing would violate U.S. law and pollute wherever it happened. GNEP would allow



Construction worker inside National Ignition Facility target chamber.

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## NUCLEAR GLOBAL POLL AND CHERNOBYL IMPACT

Two articles in the *Toronto Star* on March 18 caught my attention.

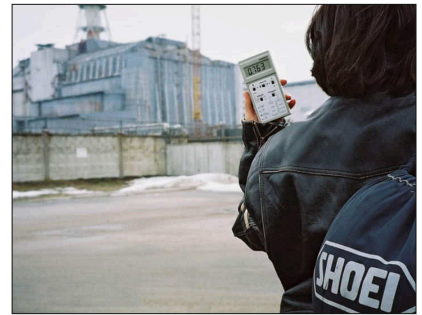
“Mood lukewarm on nuclear here, global poll finds” and “Chernobyl impact on animals greater than thought, study says.”

After the nuclear industry has spent millions on its advertising campaigns it is significant that about half of Canadians still object to nuclear power.

Full page ads in the *Toronto Star* and on television proclaiming “Clean, Safe and Cheap” have actually alerted Canadians to the political power, ample money and willingness to lie, that our nuclear industry epitomizes.

In a tiny item in the same paper we read about the lower numbers of bumblebees, butterflies, spiders, grasshoppers and other insects in the fallout areas even

22 years after that horrendous accident in Chernobyl. The film “Chernobyl” showed how all the surrounding people were rushed onto buses and evacuated



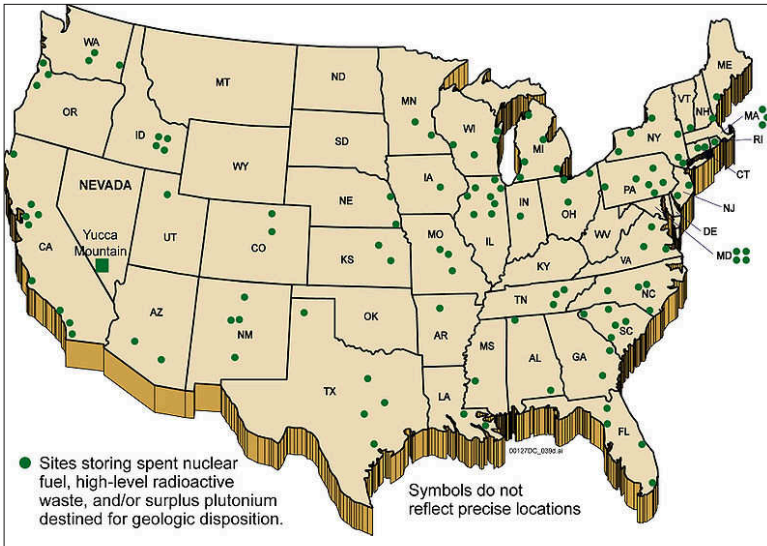
*Taking a Geiger reading at Chernobyl*

with three hours to pack up and leave, never to return. The cleanup, which is really a hasty burial of still radioactive material, cost billions. A huge covering “sarcophagus” had to be built and now needs extensive repairs. In fact it may not have been the Cold War that bankrupted the USSR so much as the accident at Chernobyl where 500,000 loyal Russians were exposed and still suffer. Rosalie Bertell led an enquiry into the health and environmental effects which is available in book form from IICPH.

Chernobyl and Three Mile Island were considered among the safest nuclear reactors in the world. Our own reactors are aging and even when operating well they emit radiation into the air, water and soil. The nuclear waste problem cannot be solved, now or ever as President Obama is about to find out as he searches for an alternative to burial at Yucca Mountain in the US. The only sane response is to phase out all nuclear reactors and then monitor the waste virtually forever.

According to the survey, levels of acceptance of nuclear power in other countries are: 81% in the US, 76% in the UK and 91% in China. It seems along with our CANDU exports to China we have exported an enthusiasm for this toxic, unmanageable, costly form of energy.

*Shirley Farlinger*



*Nuclear waste disposal sites in the USA. Map from Wikimedia Commons: [http://commons.wikimedia.org/wiki/File:Nuclear\\_waste\\_locations\\_USA.jpg](http://commons.wikimedia.org/wiki/File:Nuclear_waste_locations_USA.jpg)*

### Obama Factor, continued from page 1

the failing nuclear industry to go on polluting and generating more waste. The reprocessed waste called MOX is more hazardous than regular waste because of all the impurities created in its previous use as nuclear fuel in electricity generation plants that can never be completely removed. MOX itself cannot be recycled. Even the production of MOX causes a “horrendous trail of deadly vapors, liquids, partially solidified radioactive sludge”. Some of the waste from MOX production has been poured into the oceans under the assumption that diluting nuclear waste renders it harmless. Scientifically, that assumption is easily proven wrong. Most of the waste is stored inadequately since there is no completely safe way to store nuclear waste. It must be monitored essentially for the life of the Earth.

At present, The U.S. Dept. of Energy (DOE) and Steven Chu, Obama’s energy secretary, see GNEP and MOX as the “solution” to nuclear waste. In our view the likelihood of nuclear proliferation will not be solved through the GNEP plans. In fact, it will make the threat worse.

The Obama administration should be requested to make the only reality-based decision to phase out nuclear power plants and other nuclear installations.

The answer is to phase-out nuclear while the infrastructure and development of clean and green sustainable energy sources occurs. This is the only answer.

### References

1. GNEP proposal [www.gnep.energy.gov](http://www.gnep.energy.gov)
2. Nuclear Energy Futures Research Project Publication, Nov. 11, 2008
3. Reuters 2008

### Other sources of information:

- GNEP\_Watch\_11\_Jan7.pdf
- [http://en.wikipedia.org/wiki/Global\\_Nuclear\\_Energy\\_Partnerships](http://en.wikipedia.org/wiki/Global_Nuclear_Energy_Partnerships)

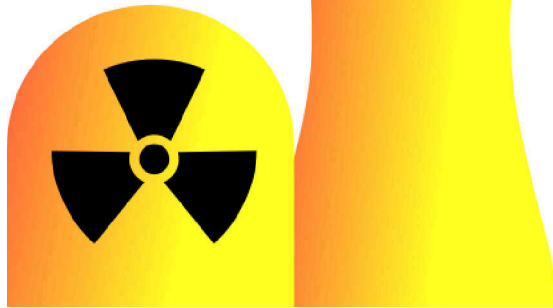
# CHILDHOOD LEUKEMIA:

## HOW MUCH EVIDENCE NEEDED FOR ACTION?

Recent studies that have produced more definitive evidence indicating rising incidences of childhood leukemia in the vicinity of nuclear power plants. Since the 1980s, a number of studies have been conducted. Three separate studies were carried out at Windscale/ Sellafield, Dounreay and Burghfield in the UK. All showed increased cases of leukemia in children living near the plants. Some studies were also done in Germany later with similar results. The authorities stated that the leukemias could not be from radiation exposure as the doses from the nuclear plants were too low to cause the increase.

Lately, a meta-analysis of research papers carried out by the Medical University of South Carolina looked at 136 nuclear sites in Canada, the U.S., UK, France, Germany and Japan. It showed that children under nine years of age living near nuclear power plants had an increase of cases from 14 to 21% with a mortality figure increase to from 5 to 24% depending on their proximity to a nuclear power plant.<sup>1</sup>

A German study found 14 cases in children living within 5 km. of the Krummel nuclear power plant near Hamburg between 1990 and 2005 instead of the expected number of four. This was described as



the largest leukemia cluster near a nuclear power plant anywhere in the world.<sup>2</sup> As a result of this study, an investigation was conducted for the German Environment Minister of all nuclear power station locations during the period between 1980 and 1990. As a result, the German population was informed by the Ministry of the Environment that, within a 15 km. zone around nuclear power stations, there was no increase in cancer and

leukemia! However, a study conducted under the control of the Leukemia Commission of Schleswig-Holstein (who were active from 1992 to 2004) resulted in the following findings:

In the up to 5 km. zone, the number of leukemia cases was significantly higher in children under 4 years. In the 5 to 10 km. range, there were fewer cases and even fewer in the 10 to 15 km. range. Epidemiologically, such a trend dependent on the distance is considered a clear indication that there is a connection with an emitter of pollutants in the centre of the area.

If the significant numbers of cases of leukemia are diluted by the inclusion of the 15 km. zone, then the resulting figures might very well be reported as having no effect as happened in the German MOE results. It is a well-established radiological fact that the dose causing the induction of leukemia in children is the smaller the younger they are.

In December 2007 it was announced by the new head, Frau Prof. Blettner of the Mainz Cancer Registry, their study confirms that, in Germany, a relationship is observable between the proximity of the home to the nearest nuclear power plant at the time of diagnosis and the risk of contracting cancer (respectively, leukemia) before the child's fifth birthday." They also determined that even at 50 km. the childhood cancer figures had still not reached normally expected numbers.<sup>3</sup> One cannot help but speculate how long will it take, how many more studies need to be done before the realization hits home that we are harming our children's health and that of future generations for the sake of a polluting industry.

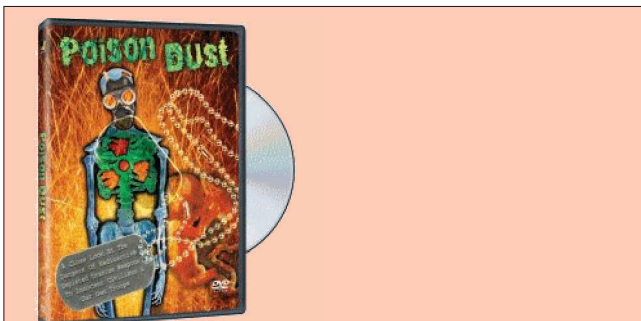
Epidemiological studies carried out independent of government or industry such as Health 2000 developed by Dr. Bertell will not only meet international standards, but produce the right scientific answers.

I believe we have enough evidence of harm already. No more studies, but action is what is needed.

*Marion Odell*  
April 6, 2009

### References:

1. European Journal of Cancer Care, vol.16, p.355
2. Environmental Health Perspectives, vol. 115, p.941
3. [http://www.bfs.de/bfs/druck/Ufoplan/4334\\_KiKK\\_Teil1\\_T.pdf](http://www.bfs.de/bfs/druck/Ufoplan/4334_KiKK_Teil1_T.pdf)



**POISON DUST**, the powerful DVD about harmful depleted uranium and its connection to the "Gulf War Syndrome" features Rosalie Bertell and Helen Caldicott among others. It is available at [iicph.org/docs/poison-dust.htm](http://iicph.org/docs/poison-dust.htm).

We have found it to be very clear and understandable. Audiences have responded with intelligent questions which leads to our being able to explain the part inhaled uranium plays in disease and thus the part played by nanoparticles of radioisotopes produced by uranium facilities, including emissions from nuclear power plants.



## THE FOOD SECURITY REVOLUTION AND ENVIRONMENTAL HEALTH

**D**ear Relatives – like so many of us, I find myself more and more pleased that being an activist has become an easier road to walk. Victories for human rights and for the Earth increase in number and significance and we hear about them sooner than we used to. Everyone’s talking about green jobs. Our hopes are up, we may actually have an activist leading the free world – Yes We Can! It’s quite a time to be a part of it all, isn’t it?

One of my favorite anecdotes in discussions about the changes in public attitude towards environment and health concerns feeding our children. So much has changed in my lifetime. As a young mother, it was almost impossible to find, let alone afford, organic baby food; it was tricky to find a place to nurse a baby in peace. These days, parents can find a wide variety of organic baby foods and formula in almost any supermarket; my grand-babies were all breast-fed (even the twins!) and fed only organic baby foods. Now that the monopolies have more “natural” offerings available to consumers, are we happy with the production? Is there a next step that we need to take?

IICPH has a stellar reputation for providing thoughtful analysis and corroboration of community environmental health concerns. Most of our works for communities report on contamination of the air, land and water. It has always given me sadness when we report arsenic, tritium, mercury, lead or other highly damaging pollution where people have food gardens or farms. People who live downwind, downwater from uranium mines, tailings ponds, refineries or within five to ten km. of nuclear power plants should not grow their own food or purchase from the area. Food discussions at our Good Life Gatherings took on sombre notes with the realization that we must be very careful where we grow our food, where it comes from and how it is prepared. Our choices become sensible when we consider the impact on our own and our collective health.

The good news is, learning to choose, grow and cook good food provides not only sound environmental education, but when applied, benefits everyone’s health and saves people money! The truth is out there, people want clean food and we are uniquely positioned to help them to learn about it. Never has our work to educate been more timely and important ... and good food is a delicious place to focus.

Perhaps the silver lining of the economic collapse is that the cards are on the table and independent activist voices are welcome and needed. An informed public continues to grow in wisdom and in numbers as the next generation begins making its mark in the history books and business reports. Let’s fill their bellies and minds with good things.

Willi Nolan

Willi has been working with IICPH since 1997. She lives with her son in rural New Brunswick. Expressions of her dedication to the clean food revolution can be found at [www.roughtimescooking.com](http://www.roughtimescooking.com).

## SUCCESSES IN ONTARIO FLUORIDE CAMPAIGN

**A**fter many years of frustrating work, it all started to turn around two years ago when IICPH Board member and water quality advocate Aliss Terpstra spotted a news item about a public meeting to be held four days later in Niagara Region. The Regional Council was being persuaded by the public health dental lobby to slip fluoridation into place over the whole region under the Amalgamation Act through its new streamlined Regional Water System, even though individual towns except for Welland had consistently voted against fluoridation of water for forty years.

It was cheaper to fluoridate the entire region from Hamilton to Niagara Falls than to isolate the infrastructure supply in Welland alone. Aliss frantically persuaded people she did not personally know but who were knowledgeable about the detrimental effects of water fluoridation to attend the meeting.

Five people countered about thirty dental and public health professionals who thought that convincing taxpayers to spend less money for the Region-wide fluoridation was a done deal.

The people who met at the meeting went on with several others to form the organization, *People for Safe Drinking Water* (PSDW). In January 2008, seven (including Aliss) deputed at the Niagara Regional Council meeting. Council voted not to fluoridate and subsequently passed a bylaw ending fluoridation for good. Through the work of PSDW and other advocates like Aliss against fluoridation of drinking water, a number of communities in Ontario have stopped (Dryden, Kingston, West Elgin); reduced fluoride levels (Hamilton); or are reconsidering it at the next election (Waterloo).

The latest is the town of Tottenham whose water had been fluoridated since 1973 and is the last municipal water system in Simcoe County to remove fluoride treatment. This victory was won through the efforts of Ward 5 Councillor Jim Stone who referred to fluoridation of water as “one of the greatest con jobs of the 20th century”.

The IICPH is very pleased with the work carried forward by Aliss to raise awareness on this issue. We applaud and endorse the work being carried out by the PSDW. We also note that Physicians for the Environment are also applauding the work of this group of dedicated advocates against fluoridation.

The International Society of Fluoride Research Conference at the University of Toronto held in August last year was an inspiring event and a terrific catalyst for subsequent activities. You can see and hear some of the speakers at that event at: [www.youtube.com/view\\_play\\_list?p=DB2EAB8BB119598F](http://www.youtube.com/view_play_list?p=DB2EAB8BB119598F)

## MOVES TO STOP URANIUM MINING AND EXPLORATION IN CANADA

Opposition to uranium mining and exploration is increasing in Canada as more efforts are going on to find uranium in large enough quantities to replace diminishing deposits at present mine sites. The market for uranium will expand with the anticipated nuclear power plant renaissance.

British Columbia has already enacted a legislated ban on the mining and milling of uranium. The province has no nuclear power plants. In spite of growing opposition, Alberta and Saskatchewan are looking at having them. Although New Brunswick activists were unable to stop the refurbishment of the aged Lepreau station going forward, they have not given up and have been successful in achieving a moratorium on mining exploration in the province. The announcement was made in Feb. 2009 in the New Brunswick (NB) legislature to pause mining exploration based on health concerns raised by citizens. A lot of this citizen awareness was due to the Conservation Council and work by Willi Nolan, our NB (volunteer) program manager. However, the battle is far from over as there are forces at work to promote expansion of energy resources across the Atlantic region.

Ontario protests are increasing. The Community Coalition Against Mining Uranium (CCAMU) has been joined by two other citizens organizations, Fight Uranium Mining and Exploration (FUME) in the Haliburton Highlands and Cottagers against Uranium Mining and Exploration (CUME) in the Muskoka area.

As a result of citizen agitation, the Ontario Government is holding hearings on a proposed new Mining Act to be revealed some time this spring. Facilitated public and stakeholder hearings will be held in Timmins Aug. 11, Sudbury, Aug. 13, Thunder Bay, Aug. 18, (all mining towns) and then in Kingston, Aug. 26 and Toronto, Sept. 8.

## WEBSITE CHANGES ON THE WAY

We're revamping our website! We're changing the looks and improving the ease of use and richness of contents of [www.iicph.org](http://www.iicph.org). As we go to press, our online resource centre looks the same as it has for several years. However, the date on the front page will let you know when the new site is turned on. Even without the upcoming changes, our "library on the web" is filled with practical information on the health issues of military and industrial pollution.



## NANTICOKE ONTARIO RESIDENTS PROTEST NUKE PLANT PROPOSAL

The largest Ontario coal-fired electricity generating plant scheduled to close down in 2014, is in this Ontario town situated in Haldimand County on Lake Erie in the midst of prime farming areas. County officials want to promote the area as a provincial energy hub. Power options would likely include some mix of nuclear, wind, solar, biomass and other sources. This was seen as a way to develop jobs including those lost when the coal-fired generating station is closed. It is in this context that some residents of the area started looking into nuclear power and became disturbed about health effects and other concerns.

At least one resident of Nanticoke attended a March 14 No Nukes Teach-in at the University of Toronto where he obtained information from us at the IICPH display table and purchased Rosalie's book, No Immediate Danger. We were very pleased to learn that opposition to a nuclear power plant has gathered a bit of steam since. On April 4, Bruce Power held an information session to tell the public about the benefits of a nuclear power plant and possibilities for building one starting in 2011 and finishing in 2018. It would employ 1,000 during the construction that might go ahead if supported by the community and passed environmental suitability tests.

Four people stood outside the community centre holding NO NUKES signs, handing out pamphlets and conversing with people who attended. We applaud their initiative and will watch developments as opposition is bound to grow as the truth about nuclear is spread.



### Rosalie Visible on Internet

- Depleted Uranium in the Human Body: <http://www.youtube.com/watch?v=WgQ79-oDX2o>
- Planet Earth: <http://video.google.com/videoplay?docid=9062737295949774810>
- Make Visible: Chemtrails: <http://www.youtube.com/watch?v=st3IHWZTrwQ>
- Snowshoe Documentary Films has a webpage dedicated to their diverse movies on Rosalie and her work. Visit: <http://www.snowshoefilms.com/rbertell.html>



## IICPH PRESS RELEASE

### HIGH TRITIUM IN OTTAWA RIVER A PUBLIC HEALTH DISASTER

#### INTERNATIONAL HEALTH INSTITUTE CALLS FOR IMMEDIATE ATTENTION

Press Release sent March 24, 2009

In support of the Tritium Awareness Project and MPs who are calling for action, the International Institute of Concern for Public Health (IICPH) calls on authorities to heed warnings about public health risks from spills of tritium into air and water from Chalk River nuclear reactors. Tritium and other radioactive contaminants are being released into the Ottawa River, affecting the drinking water for millions of people in the communities that draw water from the Ottawa and St. Lawrence Rivers. Unless immediate and serious action is taken, chronic exposure to the tritium-tainted water will cause widespread and unnecessary damage to people's health and the natural environment. Authorities have yet to acknowledge that the contaminated water will likely travel untreated into the ocean and along the Eastern coast of Canada.

The Institute questions whether the nuclear industry and the Canadian Nuclear Safety Commission (CNSC) are fully aware of decades of medical evidence of the serious dangers to public health from exposure to low levels of ionizing radiation, including birth defects and cancers. IICPH recommended the Ontario Ministry of the Environment to lower allowable levels of tritium in drinking water to a health-related standard.

IICPH founder Dr. Rosalie Bertell specializes in low dose ionizing radiation and argues that tritium should never be released into the Ottawa River. Institute coordinator Marion Odell reports, "Nuclear energy plants should at least limit their emissions to 10 becquerels per liter immediately. Ideally, tritium should not be released in our water, but that appears highly unlikely to be achieved until the nuclear facilities are closed."

Toronto's Tritium Awareness Project February 2009 report states that the Canadian standard of 7000 becquerels of tritium per liter of water is 466 times higher than the standard in California. MPs Paul Dewar and Nathan Cullen have brought the matter to the House of Commons. Odell comments, "We commend the Tritium Awareness Project and the MPs for bringing facts about this disaster to public attention. IICPH supports their efforts to protect public health." Contact: Marion Odell info@iicph.org (416) 786-6128.

### INFORMATION LINKS

Dr. Rosalie Bertell's submission to CNSC regarding SRB Technologies and its proposal to pour tritiated water down the municipal sewer, as well as further references in appendix.

<http://iicph.org/docs/health-effects-of-tritium.pdf>  
<http://iicph.org/docs/health-effects-of-tritium-appendix-1.pdf>

**Comments on Standards and Guidelines For Tritium in Drinking Water:** IICPH Submission to the Ontario Drinking Water Advisory Council by Rosalie Bertell, Ph.D., GNSH, March, 2008  
<http://iicph.org/docs/tritium-in-drinking-water.html>  
Tritium Awareness Project Interview on CTV NewsNet. Reporter Katharine Latham - March 5, 2009. Tritium Awareness Project  
<http://www.aafna.ca/>

**Globe & Mail: Danger of Tritium Exposure Underrated** (link)

<http://www.theglobeandmail.com/servlet/story/LA.C.20070612.TRITIUM12/TPStory/?query=Danger+of+tritium+exposure+underrated>

**Contacts for the Tritium Awareness Project:**

- Gordon Edwards, Canadian Coalition for Nuclear Responsibility, (514) 839 7214  
<http://www.ccnr.org/>
- Lynn Jones, Concerned Citizens of Renfrew Country, (613) 735 4876  
<http://concernedcitizens.ca>
- Mike Buckthought, Sierra Club Canada, (613) 241 4611 ext 235
- Robert Del Tredici, Atomic Photographer's Guild, (514) 884 3885 (cell)
- Michel Duguay, Université Laval, (418) 656 3557
- Michel Fugère, Mouvement vert Mauricie, (819) 532 2073
- Meredith Brown, Ottawa Riverkeeper, (613) 864 7442 <http://ottawariverkeeper.ca>

**Tritium - Alerte Publique** mardi 17 février 2009  
<http://www.pressegauche.org/spip.php?article3391>  
**CBC - NDP says resources minister misled public about water leak at reactor**  
<http://www.cbc.ca/canada/story/2009/02/25/chalk-river.html>

**Lake Ontario Waterkeeper**

<http://www.waterkeeper.ca/2009/02/25/ndp-says-resources-minister-misled-public-about-water-leak-at-reactor/>

*Chalk River Laboratories.*



## BOOK REVIEWS

**“Under the Radar: Cancer and the Cold War” by Ellen Leopold. 2009: Rutgers University Press**

Knowing, as we do, the close connection between radiation and cancer, doesn't it seem strange that so little progress has been made? This book offers an explanation. The material is all from the United States but it probably applies to Canada as well. Rosalie Bertell was one of the author's advisors.

“Cancer had become a by-product of atomic weaponry, a seed sown in a mushroom cloud that could grow anywhere on earth in any season.” Few Americans were aware of this.

During the Cold War the US thought it was necessary to keep testing their nuclear weapons. The possession of nuclear bombs seemed to the strategists a guarantee of military superiority. To keep the industry going it was necessary to test. This required an insistence that the radiation would not be harmful to humans. The long latency period of cancer assisted in covering up the connection.

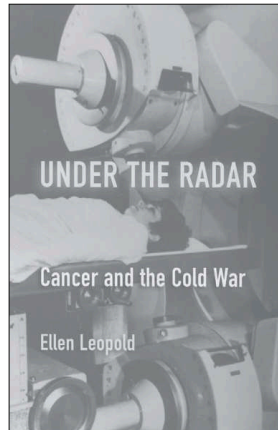
A healthy male was chosen as the norm for setting allowable doses. The tests sought to establish an official level of radiation that would still allow the testing to continue without further public concern. But as the public continued to be concerned the acceptable level was lowered and continues to be lowered but not below what we now know to still be harmful.

To legitimize the nuclear industry, ways were sought to try to make nuclear technology beneficial to people. First it was the Cobalt-60 treatment for cancer, since rejected as more harmful than helpful, then it was other radiation treatments and medical tests. Now it is food irradiation. Some treatments did not involve informed consent and if the information available is still wrong how can consent be called informed?

At the same time nuclear power was touted as a great advantage for safe, clean, reliable and cheap energy. As Rosalie points out, this provided a cover for the less attractive nuclear weapons.

Responsibility for cancer was put onto individuals. They smoked, or drank, or ate too much, or were under stress. The book shows that surveys indicated that none of these factors affected the cancer rates, which continue to climb.

The objective of treating cancer was pursued because it is more profitable to treat cancer than to prevent it. From society's and the victim's point of view prevention would be much cheaper as well as more humane. The cost to society of cancer is huge, but in the US it was the chance to make money that mattered. Government was deregulated, oversight discouraged and industries left to self-monitor. “Victims are not just blameless, they are powerless ... Strategies such as rigorous control of industrial



pollution have virtually disappeared.”

The *New England Journal of Medicine* concluded that “some 35 years of intense effort focused largely on improving treatment must be judged a qualified failure ... the way forward lay in cancer prevention rather than in treatment.”

The situation should be better in Canada, with a public health system, but as the next book shows this may not be the case.

**“Corrupt to the Core: Memoirs of a Health Canada Whistleblower” by Shiv Chopra. 2009: KOS Publishing Inc.**

It is a tangled web Dr. Chopra describes in recounting his experience working for Health Canada for 36 years. The first struggle was to rise to a management position that he was constantly denied, even when he was much more qualified than those promoted. It came to the question of whether a man of Indian origin could follow the “North American way of doing business” that managers were expected to follow. That seemed to be where the department's own scientists pass products of questionable safety such as growth hormones, genetically modified organisms, pesticides, antibiotics and drugs to be used in food-producing animals. But the large companies, such as Monsanto, were interested in fast-tracking their latest products and were willing to bribe officials to get their way.

A lengthy grievance assisted by the unions proved that racism was a negative factor in Dr. Chopra's career.

The next fight was to stop the onslaught from the big companies to ignore the Food and Drug Act an Act that must be upheld by all government agencies and politicians.

“There was little that any regulatory scientists could do to counteract the massive money-mad policy of the Government of Canada.” No matter how high up the ladder the cases went, the result was the same. On one side were Maude Barlow, David Suzuki, Vandana Shiva and Paul Dewar MP. On the other were David Dodge, Alan Rock, and Jean Chretien.

Dr Chopra and other “whistleblowers” were wrongfully dismissed in 2004 and are still pursuing the right to return to full employment. Just his record on preventing Mad Cow Disease, reporting on anthrax, and warning about vaccines should put him back in Health Canada.

In April 2008, Paul Dewar MP presented Dr. Chopra's “Five Pillars of Food Safety” to Parliament as a blueprint for government policy.

Although the book does not deal with the health effects of radiation, there is every reason to suppose that Health Canada is subject to the same pressures from the nuclear industry as they have been from the chemical industries. Let us hope for other whistleblowers who can help us uphold our commitment to “concern for public health.”

*Shirley Farlinger*



## HEALTH IMPACTS OF NANO-PARTICLES

**A** new book entitled *Nanopathology: The Health Impact of Nanoparticles* by Antonietta Gatti and Stefano Montanari sheds new light on the health impacts of nanoparticles.

Both biomaterial researchers, they have worked to refine the use of medical technology to cure diseases. However, the diagnostic findings they have made, through the use of an Environmental Scanning Electron Microscope (ESEM) that 'reads' the component elements in nanoparticle debris, have opened a new window on nanoparticle health effects. Close examination of tissue samples and the noted health problems associated, particularly cancers, were shown to coincide with the presence of nanoparticles in the margins between healthy and diseased tissue.

Antonietta Gatti is credited with making the first observations of nanoparticles in diseased tissue. Rosalie Bertell has noted that they had looked particularly closely at metallic nanoparticles created by depleted uranium (DU).

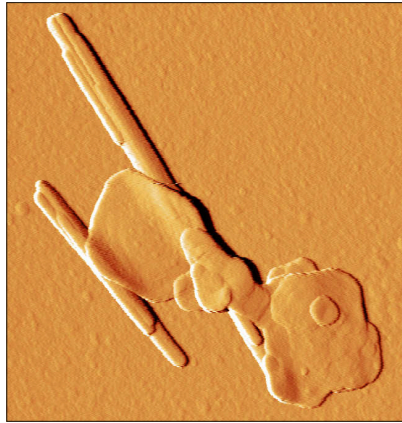
The recent development and use of nanoparticles in commercial products such as cleaning agents and cosmetics has been a matter of concern to IICPH. There are now even washing machines, fridges and air conditioners that dispense silver oxide, a known toxic, for alleged antimicrobial benefits. Such particles are often neither soluble or biodegradable.

Regulation is vital to prevent such half-truths, say the authors.

The authors think public education must be raised to demand strict regulation and mandatory labeling of all commercial products containing nanoparticles. By rights, these nanoparticles should actually be banned under the Precautionary Principle.

### Reference

[http://www.amazon.ca/Nanopathologies\\_Gatti/dp/98127055461/ref=sr\\_8\\_6](http://www.amazon.ca/Nanopathologies_Gatti/dp/98127055461/ref=sr_8_6)



*Atomic Force Microscopy image of uranium phosphate precipitated with goethite*

## RADIATION DAMAGE TO DNA

**A** new technique for assessing radiation damage to DNA indicates that the spatial arrangement of the damage is more important than the number of lesions in determining the severity of the damage according to a report released by Brookhaven National Laboratory (USA DOE) published in the March 19, 2008 *Acids Research*. The researchers were looking at the possible danger to future astronauts from highly charged radioactive particles in space. What they do not say is that these "space particles" are the same as those here on earth generated through nuclear

fission. They are alpha and beta particles released by radioactive atoms. X-rays and Gamma rays are part of the electro-magnetic spectrum, like visible light. They are photons rather than particles.

The Study stated:

"Radiation can damage the DNA double-helix in a variety of ways: 1) by knocking off one or more of the DNA "bases" known by the letters A, T, G and C that form the bonds between the two strands of the double helix; 2) by oxidizing these bases; or 3) by breaking through one or more strands. All will result in the failure of the affected molecule to perform its main task, telling cells which protein to make. The result can lead to out-of-control cell growth (cancer) or death of the affected cell.

Cells can often repair radiation damaged DNA using special enzymes to excise and patch up the damaged segments. But damage from ionizing particle radiation appears to be harder to repair than that caused by X-rays and Gamma rays because the placement of the two types of damage according to the report of their research."

They do not mention the damage to DNA that can cause genetic and teratogenic effects.

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