

Turning Point

Physicians for Global Survival (Canada) Médecins pour la Survie Mondiale

Simons Foundation awards grant for ICAN work

The International Campaign to Abolish Nuclear Weapons (ICAN) is a global campaign that aims to raise awareness of the continued threat of nuclear weapons. It calls on the United Nations to adopt a Nuclear Weapons Convention (a treaty to ban nuclear weapons). The campaign was begun in 2006 by

the Australian affiliate of the International Physicians for the Prevention of Nuclear War (IPPNW).

PGS launched ICAN on Parliament Hill in October, 2007. In February the Simons Foundation awarded a \$10,000 grant to PGS to support the ICAN program in Canada. The campaign provides video and web based materials

for presentation in local communities, and offers many exciting ideas for actions that can be taken by groups, schools, or individuals, whether or not they are PGS members. Specific projects will be developed further during the PGS Strategic Planning Day, March 29th. (see p. 12).

The Cold War may be over, but the threat of nuclear war has escalated. We are facing an extremely volatile situation on four fronts. The US, the UK and Russia are upgrading the capability of their nuclear arsenals; there is a new generation of nuclear countries such as India, Pakistan and North Korea who have tested their weapons; there are states that aspire to become nuclear powers and some 30 with the capability. Terrorist groups are attempting to acquire nuclear weapons. Disarmament has disappeared from the agendas of all nuclear weapons states. We are entering a nuclear renaissance and citizens are very concerned. IPPNW's ICAN Campaign to finalize a Nuclear Weapons Convention is a timely and crucial contribution to disarmament.

Jennifer Allen Simons, Ph.D.
January 29th, 2008



Action Alert

Sign the ICAN endorsement form on the enclosed coupon and ask others to sign — your colleagues, your medical association, other organizations you support, your church, your children's school, your local politicians, your mayor...

PGS Wins Award

Best Overall Exhibit at the Ontario College of Family Physicians Annual Scientific Assembly, November 15 to 17th, 2007.



Andrea Levy, PGS office manager; Dr. Barbara Birkett, Past President, PGS; Dr. Kendall Noel
— Chair, ASA Scientific Program 2007

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Turning Point is the newsletter of Physicians for Global Survival (Canada), a non-profit organization. To receive Turning Point and support our work we invite you to join PGS.

All contributions above \$5 are tax-creditable. Any items for publications, such as articles, cartoons, photos or advertisements, should be submitted to the National Office for consideration (in English or French).

Manuscripts should be relevant to the Mission Statement, but do not have to conform strictly to present PGS policy. They must be transmitted via e-mail to: pgsadmin@web.ca. Gov't Registration No: BN10784-2684-RR0001

"Because of our concern for global health, we are committed to the abolition of nuclear weapons, the prevention of war, and the promotion of non-violent means of conflict resolution and social justice in a sustainable world."

"En raison de notre préoccupation pour la santé mondiale, nous sommes déterminés à faire interdire les armes nucléaires, à prévenir la guerre, à promouvoir des moyens pacifiques de résolution de conflit et à instaurer la justice sociale dans un monde viable."

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International Physicians for the Prevention of Nuclear War

President's Letter

by Nancy Covington

"Today we have not only one inconvenient truth — climate change — but we have another inconvenient truth — there is a second arms race."

This quote, from Hans Blix, (chairman of the UN Weapons of Mass Destruction Commission), suggests two distinct threats. In fact these two threats are intertwined. Climate change has been described as a 'threat multiplier' and many diplomats fear that global warming will cause new wars. On the other hand, wars exacerbate climate change as military activity traditionally



uses a lot of fossil fuels, which contribute directly to global warming.

As Sheila Zurbrigg points out in her article (page 3), the current crisis in Darfur may be an example of a 'climate driven conflict' because of decreased rainfall there.

Physicians for Global Survival (PGS) recognizes this dual threat of the arms race and climate change. PGS recently supported a worldwide "Call to Action by Governments from Health Professionals", a document developed by the British Medical Journal and delivered as a wakeup message to the Bali Climate Change Summit held in Dec 2007. (More information: www.climateandhealth.org).

When negotiations in Bali to create a global treaty on climate change were

La lettre de la Présidente

par Nancy Covington

«Aujourd'hui nous n'avons plus seulement une seule vérité inconfortable, le changement climatique, mais deux. Il se vérifie une seconde course aux armements.»

Cette citation de Hans Blix, (président de la Commission sur les armes de destruction massive des Nations Unies), suggère deux risques distincts. En fait, les deux risques sont enlacés. Les changements climatiques ont été décrits comme des « multiplicateurs de risques »

et beaucoup de diplomates craignent que le réchauffement global puisse causer de nouvelles guerres. De l'autre côté, les guerres aggravent les changements climatiques vu que l'activité militaire utilise traditionnellement beaucoup de

combustibles fossiles contribuant ainsi directement au réchauffement global.

Comme le met en évidence Sheila Zubrigg dans son article (page 3), la crise actuelle du Darfur pourrait être un exemple de « conflit mené par le climat » à cause de la diminution des pluies.

Les Médecins pour la Survie Mondiale (MSM) admettent que non seulement la course aux armements mais aussi les changements climatiques sont des risques. MSM a récemment supporté mondialement un « Appel à l'Action des Gouvernements des Professionnels du Secteur Médical », un document développé par le British Medical Journal et distribué comme message de réveil au Sommet sur les Changements Climatiques de Bali de décembre 2007 (pour plus d'informations : www.climateandhealth.org).

Lorsque les négociations de Bali pour créer un traité global sur le changement climatique ont été minées par le Canada,

being undermined by Canada, Japan, and US, the Avaaz group, a not-for-profit global campaigning organization, which presents values of world's citizens to global decision makers, geared into action. Avaaz delivered an on-line petition with over 600,000 signatures (110,000 from Canada). Although not a complete victory, it led to Canada changing tactics, thus revealing the strength of civil society speaking out.

The International Campaign to Abolish Nuclear Weapons (ICAN) remains PGS's central focus. We thank those who have sent their endorsement and urge others to sign. As a physicians' organisation we have our greatest impact with the public and our colleagues when we can show we have the support of a large number of doctors.

le Japon et les Etats Unis, le groupe Avaaz, une association sans buts lucratifs et à campagne mondiale qui présente les valeurs des citoyens du monde aux décideurs globaux, est entré en action. Avaaz a fourni une pétition effectuée en ligne avec plus de 600.000 signatures (110.000 du Canada). Même si ceci n'est pas une victoire complète, le Canada a été obligé de changer ses tactiques, comme quoi a été révélée l'importance de l'expression de la société civile.

La Campagne Internationale pour Abolir les Armes Nucléaires (ICAN) reste le but principal de MSM. Nous remercions ceux qui ont envoyé leur approbation et nécessitons d'autres signatures. En tant qu'organisation de médecins, nous avons un impact important sur l'opinion publique et sur nos collègues surtout quand nous pouvons démontrer que nous avons le support d'un grand nombre de docteurs.

Is This the World We Want to Leave to Our Children?



By Dr. Sheila Zurbrigg

Published in the Halifax Herald, December 20, 2007.

Slowing climate change is

not as simple as turning off a tap. The CO2 we emit today stays in the atmosphere for 100 years. Its warming effect continues. Heat accumulates long after we have closed the greenhouse gas (GHG) emissions faucet.

This is why over 1,000 scientists with the UN Intergovernmental Panel on Climate Change (IPCC) have concluded total GHG emissions must be in decline by 2015, at the very latest, to have any chance of keeping global warming to under two degrees C.

Why two degrees? To prevent runaway climate change. Above this level "positive" feedback loops increasingly take over. Thawing Arctic tundra, for example, releases vast quantities of methane, a much more potent GHG than even CO2. As oceans warm, their capacity to absorb, or "sink" CO2 declines. And as the polar ice caps melt, increasing amounts of the sun's energy are absorbed by now-exposed dark waters rather than reflected back into space. Already these feedback loops contribute and estimated 18 percent of current warming, a trend which will only intensify.

The next few years are key: 2015 is only seven years away. Yet Canada's emissions, the highest in the world per person (along with the US) continue to rise.

What are the consequences if we don't act now?

Last month's IPCC report predicts dramatic changes in rain distribution around the world. One likely consequence the scientists point to is "severely compromised" access to food in many African countries by 2020. "In some countries," it estimates, "yields from rain-fed agriculture could be reduced by up to 50 percent."

For most of us, many generations (happily) distant from any experience or understanding of hunger, the 50 percent figure may carry little meaning. Historically, however, European famines were triggered by five to 10 percent harvest declines. Most starvation occurred not from drastic shortage of food, but from soaring prices. Poor harvests triggered fear, stockpiling and hyperinflation, a sequence which quickly priced the poor out of the foodgrain market. The panicked response to Y2K eight years ago is just a minor example of how this happens.

A 50 percent real decline in food output is simply "off the charts" as famine trigger. Governments today



Thawing Arctic tundra. Credit: Graham Ashford

attempt to steady market foodgrain prices, but the possibility of success with declines of this magnitude is negligible.

These consequences are not remote. Indeed, many see the conflict in Darfur between nomadic tribes and settled farmers to be, at root, the result of global

... continued on page 7

Colloquium In Montreal, November 2007

Le Nucléaire: Un Choix Responsable ?

Allocution Du Dr Éric Notebaert

Choix Énergétiques, Environnement et Santé Globale Colloque organisé par : Les Professionnel-le-s de la Santé pour la Survie Mondiale et La Chaire de Recherche du Canada en Éducation Relative à l'Environnement. Université du Québec à Montréal, 17.11.2007. L'ensemble des présentations du colloque est disponible sur le site suivant : www.unites.uqam.ca/ERE-UQAM/ dans la section 'Quoi de neuf'.



Les sujets suivants ont été abordés dans cette présentation : les risques associés au nucléaire civil; la question des déchets nucléaires;

les niveaux d'exposition acceptables pour la population; celles tolérées pour les employé-e-s des centrales; les risques d'accidents; les liens avec le nucléaire militaire; et finalement les choix énergétiques et de société qui s'offrent à nous. Nous ne traiterons que de quelques aspects de la présentation dans ce court texte.

La question du tritium dans l'eau du canal de rejet est extrêmement préoccupante. Au Québec comme au Canada, les limites maximales tolérées par les gouvernements sont de 7 000Bq/L, beaucoup plus élevées que celles tolérées en Europe : 100Bq/L ou en Californie : 15Bq/L. Ces standards canadiens sont beaucoup trop permissifs et exposent les canadiens à des risques significatifs. En 2006, le Bureau de la Santé de Toronto avait d'ailleurs conseillé de diminuer au maximum les niveaux acceptables et de viser 20Bq/L. Tout récemment, un expert en radiations, M Ian Fairlie suggérait même aux femmes enceintes

qui demeurent à moins de 5 km des centrales de déménager. Par ailleurs, l'air n'est pas exempt de contamination, car on y retrouve aussi du tritium, du carbone-14, de l'iode-131, et plusieurs autres substances. Et on a noté aussi des niveaux élevés de tritium dans le lait des vaches et dans certains légumes en périphérie de la centrale.

La question des déchets nucléaires n'est pas réglée au Canada, car même si le gouvernement a décidé d'aller de l'avant avec le projet de stockage en profondeur, nous n'estimons pas que cette solution est exempte de risque à long terme. Il faut rappeler les demi-vies des substances pour réaliser à quel point on taxe les générations futures.

- Uranium 235 : ½ vie : 710 000 000 ans
- Plutonium : ½ vie : 24 400 ans
- Iode 129 : ½ vie : 15.8 millions d'années.

La ½ vie de ces toxiques excède l'histoire de l'humanité...

Une question très controversée est certainement la dose d'exposition acceptable pour la population générale. On estime actuellement que celle-ci reçoit 2.4 mSv/an (milliSievert). Les recommandations actuelles sont de ne pas dépasser une exposition de 1mSv/an causée par les centrales nucléaires (DORS / 2000-203. Règlement sur la radioprotection). Or ceci est basé sur des données très hypothétiques. Et il est fort intéressant de constater que

les risques de cancer estimés varient d'un organisme à l'autre et augmentent d'année en année.

Au chapitre du lien nucléaire civil et militaire, nous avons souligné l'utilisation intensive de l'uranium 238 'appauvri' comme dans les bombes conventionnelles qui est des plus révoltantes. Les effets toxiques sont secondaires à la radioactivité, aux produits chimiques et aux fumées libérées. Au moins 18 pays ont utilisé de telles armes : Angleterre; Arabie Saoudite; Bahrain; Chine; Égypte; États-Unis d'Amérique; France; Grèce; Inde; Israël; Jordanie; Koweït; Oman; Pakistan; Russie; Taiwan; Thaïlande; Turquie.

En conclusion, pour une foule de raisons, l'énergie nucléaire est une forme d'énergie à abandonner définitivement. Afin de diminuer le réchauffement de la planète et la production de gaz à effet de serre, il y a plusieurs autres avenues possibles: au premier chef, un changement majeur dans notre comportement à tous et toutes s'impose : l'économie d'énergie est une nécessité absolue. Mais aussi, l'utilisation plus importante de sources d'autres sources d'énergie devra se faire. Au Québec, il y a bien sûr l'hydroélectricité mais aussi il est possible d'exploiter à bien plus grande échelle : l'éolien; le géothermique; le solaire; l'exploitation de la biomasse et de la mer.

Montreal Colloquium, *continued*

Nuclear Energy: A Responsible Choice?

By Dr Éric Notebaert

Choices for Energy, Environment, and Global Health. Symposium organised by: Les Professionnel-le-s de la Santé pour la Survie Mondiale et La Chaire de Recherche du Canada en Éducation Relative à l'Environnement Université du Québec à Montréal, 17.11.2007. All the presentations of the symposium can be found on the following site : www.unites.uqam.ca/ERE-UQAM/ in the section 'Quoi de neuf' (What's new?)

The following subjects were addressed in this presentation : the risks associated with nuclear energy; the problem of nuclear waste; the level of exposure acceptable for the population; the level tolerated by the workers in nuclear plants; the risk of accident; the links with nuclear weapons; and finally the choices of energy sources available and the social changes needed.

The issue of tritium in the water discharged from nuclear power stations is of great concern. In Quebec, as in Canada, the maximum permissible limit set by government is 7,000 Bq/L, much higher than the European limit of 100 Bq/L or the Californian limit of 15 Bq/L.

The Canadian standards are much too lax and expose the population to significant risk. In 2006 the Toronto Board of Health advised the reduction of the maximum acceptable level to 20 Bq/L. Very recently Ian Fairlie, an expert on radiation, advised that pregnant women who lived within 5 Km of a nuclear plant should move further away. Contaminants detected in the air include tritium, carbon 14, and iodine 131. Cows' milk and some vegetables from the vicinity of power plants have been found to contain elevated levels of tritium.

The question of nuclear waste disposal is not resolved in Canada, for even if the government decides to proceed with subterranean storage, we consider that this solution is not free of longterm risk. To understand the burden we are imposing on future generations, we must remember the half-life of the radioactive waste :

- Uranium 235 : 710,000,000 years
- Plutonium : 24, 000 years
- Iodine 129 : 15.8 million years

The half-life of these toxins exceeds the history of humankind.

Defining the acceptable level of exposure for the general population is very controversial. It is estimated that they receive 2.4 mSv/year (milli Sievert). The existing recommendation is that an exposure of 1mSv/year from the power stations should not be exceeded. (DORS/2000-2003. Regulation on radioprotection). However, this is based on extremely hypothetical assumptions. It is very interesting to note that the estimated risk of cancer varies from one institution to another, and that it increases from year to year.

Regarding the connection between military and civilian nuclear industries we deplore the extensive use of « depeleted » Uranium 238 in conventional bombs. This use is appalling. The toxic effects of

DU include, in addition to the radioactivity, chemical products and poisonous fumes.

At least 18 countries have used these weapons : The United Kingdom, Saudi Arabia, Bahrain, China, Egypt, the United States, France, Greece, India, Israel, Jordan, Kuwait, Oman, Pakistan, Russia, Taiwan, Thailand, and Turkey.

In conclusion, for a multitude of reasons, nuclear energy should be completely abandoned. To reduce the warming of the planet and greenhouse gas production there are several other possibilities : the most important being a complete change in our lifestyle in all its aspects. Reducing energy usage is an absolute necessity. In addition, the much greater use of alternative sources of power must take place. There is hydroelectricity in Quebec, but it is also possible to develop on a vastly greater scale wind, solar, geothermal and sea power (tidal and wave), as well as exploitation of biomass.

Montreal Colloquium, *continued*

Nuclear Energy and Climate Change



by Michael Dworkind

Given the concerns for global health expressed in our mission statement — our commitment to the abolition of nuclear weapons,

prevention of war and seeking a sustainable world — we must now consider the important issues of climate change and the current supposed renaissance for nuclear power.

There is apparent interest in increasing use of nuclear power as a partial solution to the dependence on fossil fuels and reduction of global warming gases.

The deadly connection between nuclear power and nuclear weapons is clear. One cannot be achieved without the other. The essential components of nuclear weapons, their plutonium core and tritium triggers, are produced only in nuclear power plants; without them, nuclear weapons could not exist. Thus, a renaissance in nuclear power could increase the risks of global nuclear proliferation and weapons production.

From an environmental perspective uranium, like fossil fuels, is a finite resource. According to the International Atomic Energy Agency, at the current usage rate reserves may be exhausted in the next 85 years. Thus, nuclear power is not sustainable. Using spent fuel as an energy source will only increase the production of plutonium and create greater problems of proliferation.

How feasible is nuclear power in supplying energy needs? The total current share of world energy production by the nuclear industry is estimated at less than 16% of electricity supplied. It would require massive expansion to

displace fossil fuel production. It takes 10–15 years to build a nuclear power plant. All other problems aside, that delayed response to climate change is no solution.

Nuclear energy is extremely expensive, costing approximately 10–15 billion dollars to build. CANDU would not survive without millions of dollars of subsidies. Reactors expected to last 40 years have required major repairs and rebuilding after 25 years or less. Refurbishment costs have run 100s of million of dollars over budget and typically behind schedule.

Although CANDU has a small carbon footprint, uranium requires enormous amounts of carbon-based fuel to mine, mill and transport. The environmental impact of uranium mining is enormous, causing hundreds of thousands of kilograms of tailings, which are low level radioactive dust in the form of radon daughters. When inhaled, this dust can produce lung cancers. Approximately 6,000 cubic metres of low level wastes are generated annually by Ontario hydro alone.

In the normal functioning of nuclear power plants, low level radioactive discharges such as tritium, cesium-137 and carbon 14 are produced. The CANDU reactor, in fact, produces the most tritium of all other types of reactors. Tritium is discharged into the air and water at contaminating levels which are above

those considered acceptable by European and U. S. standards. The teratogenic effects of tritium are well established and concerns about tritium as an internal emitter in production of cancer is actively being researched. Several recent studies show increased incidence of leukemia and lymphoma among children living around nuclear power plants.

The problem of high level radioactive wastes, highly toxic indefinitely (hundreds of thousands of years), remains unsolved. CANDU reactors generate approximately 85,000 fuel bundles yearly. As of 2003, 1.7 million bundles were in storage at reactor sites. No safe disposal has been devised.

Decommissioning reactors is dangerous, expensive and requires further safety planning in terms of environmental accidents and terrorist attacks. All this only increases the economic burden of this technology. How can we comprehend, let alone provide, security for a million years?

Nuclear accidents such as that in Chernobyl have a huge, devastating, and long-lasting impact on public health over enormous areas and populations. Smaller radioactive leaks from plants around the world (often unreported) are additional concerns in the continuous increase in toxic waste released to the environment.

There is ample scientific evidence that sustainable energy systems such as wind, hydro, solar, biomass, etc. are feasible

Dr. Dworkind is a peace activist and the founding president of professionnels de la santé pour la survie mondiale, the Quebec chapter of Physicians for Global Survival. He is currently board member of PGS and the International Councilor for International Physicians for Prevention of Nuclear War.

Dr. Dworkind is Associate Professor of Family Medicine at the McGill School of Medicine, a fellow of the College of Family Physicians of Canada. He is a consultant in pain and palliative care at the Jewish General Hospital.

Nuclear Energy, *continued*

sources of electrical power. A mix of these, combined with conservation and efficiency strategies would provide many cost-effective benefits – including far more employment than nuclear.

Thus, Physicians for Global Survival strongly supports strategies to

implement sustainable energy planning as a solution to climate change. Canada has a vital leadership role in curtailing a nuclear power renaissance, reducing the potential for nuclear proliferation and weapons production, and thus reducing the threat of nuclear war.

Is This the World, *continued*

rainfall shifts. (The Atlantic Monthly, April 2007). They see severe drought and desertification in the 1908s at the heart of subsequent warfare. Darfur, in other words, may well be “a canary in the coal mine, a glimpse of climate-driven conflict.”

The ultimate irony is that those least responsible for global warming will bear by far the most catastrophic consequences. Most GHG emissions (over 80 percent) added to the atmosphere are ours, not theirs, and continue to come from the rich industrialized countries.

What is needed from the developed (high income, high emitting) countries is 25 to 40 percent GHG reductions below 1990 levels by 2020. All the developed countries, with the exception of Canada, the US and Japan, are committed to this. China, with per capita emissions one-sixth our level, also was prepared to commit to major reductions at the recent climate conference in Bali. But it insisted on concrete (rather than voluntary) targets from the biggest emitters (us) in return.

Canada’s emissions continue to rise — much of this annual increase coming from the tar sands. At Bali,

Prime Minister Stephen Harper offered 20 percent reduction by 2020. But he did so, misleadingly, by basing this reduction on 2006 levels, not 1990, the standard baseline. This would leave Canada’s emission still two percent above 1990 levels in 2020, not 25 to 40 percent below. The rest of the world at the Bali meeting was not fooled. They were outraged.

Yet because of Canadian and US opposition, 11th hour agreement was achieved only by omitting concrete targets. The industrialized countries will be “guided” but not bound by the 25 to 40 percent emission targets called for by scientists.

We can no longer pretend that massive harvest failures and water depletion in other continents will not profoundly affect our own society. Is this the world we want to hand to our children?

Sheila Zurbrigg is a physician, a health historian in Halifax, and a past board member of PGS.

Call For Papers

Prescriptions for Survival: The Physician in the Global Village

Exploring the Connections between Health, Militarism and the Environment

Co-hosted by:

Physicians for Global Survival,
Canadian Association of Physicians
for the Environment and Association
of Doctors for the Advancement of
Physically-active Transportation

September 25th – 27th, 2008 Halifax, Nova Scotia

Physicians and others working or researching in the overlapping fields of peace, conflict-resolution, environmental sustainability and health are invited to submit papers, workshops and poster presentations.

Consider topics linking health to the following:

- human rights,
 - economic and social policy,
 - climate change and environmental degradation,
 - the ‘built’ environment,
 - chemical waste,
 - militarism and war,
 - energy and resource depletion,
 - ‘greening’ of hospitals,
 - pandemic, weather disasters
- Other areas will be considered.

Keynote speaker: Dr. Helen Caldicott

For a more detailed description of potential topics go to www.pgs.ca.
Submit abstracts to:
pgsconference@gmail.com

Deadline for submission: April 1, 2008

Health Threats of Proposed Uranium Mine

By Dr. Linda Harvey

A uranium mine, proposed for an area just north of Sharbot Lake, Ontario would have profound effects on health of Ontarians. Some 30,000 acres have been staked for mining on the east side of Crotch Lake. This lake drains into the Mississippi River, which runs through the communities of Carleton Place and Almonte to join the Ottawa River just upstream of the city of Ottawa. The watershed serves agricultural lands and over one million people.

As with all uranium mines, there will be radioactive and heavy metal contamination downstream. Mining experts and proponents of the industry will tell you that “best mining practices” are “safe”. This is not the case.



No clean-up is possible once radioactive contaminants leach, spill or are washed from tailings containment sites, which remain radioactive for thousands of years. The contaminants bind to sediments in the rivers and wetlands downstream and enter biological systems. Millions of tax dollars have been spent to date in unsuccessful attempts to clean up sites such as the Moira River and the Serpent River south of the Elliot Lake mines.

The effects of radioactive exposure on the body are cumulative, and include



cancers, genetic damage, mental retardation from in utero exposures and immune system dysfunction. There is now evidence that atherosclerotic heart disease, peripheral vascular disease and the arthritides may be negatively impacted by oxidative stress arising from radiation induced intracellular damage. Ever lower levels of chronic radiation exposure are being implicated in human health damage. This damage, involving as it often does a genetic component, will be cumulative over generations.

The medical profession was astounded, a mere 40 or so years ago, to discover that DDT had migrated to all parts of the globe and was in all living organisms. Radioactive material released from its resting place in the ground will do so as well.

Some 85% of the original radioactivity of the rock formation mined out for uranium will be left, crushed to sand-sized particles and exposed to air and water in tailings containments.

As a retired family physician, I know well the impact of one case of cancer or other serious illness on an individual, a family, a close circle of friends. To set up this source of future harm for nearby

residents, nearby population centres and our descendants without meaningful means of redress is unethical.

The \$40 billion that the Ontario government proposes to spend revitalizing the nuclear industry could go a very long way towards setting up sustainable energy programs. Supplies of commercial quality uranium ore will be exhausted within a generation. Currently mined low grade ore, such as the deposit located north of Sharbot Lake, takes more fossil fuel energy to mine, refine, contain in reactors and eventually dispose of than is likely to be recovered in nuclear power.

The uranium which will be extracted from this piece of land has two principal uses in our society today: fuel and weapons. These are not mutually exclusive. If we are to accurately assess the damages to ourselves of taking it out of the ground, we must factor in these endpoints. Contamination from these uses will affect but not be limited to local populations.



All nuclear reactors currently in use for electrical power generation routinely release radioactive isotopes into the air and into the water that is used as coolant. In addition to this there are non-routine or accidental releases.

Health Threats, *continued*

Preparation of uranium as fuel for reactors or for weapons production can involve the process of enrichment. In this process the isotope U235, which makes up about 1% of natural uranium is concentrated. The remaining uranium, mostly U238, is given the somewhat deceptive label "depleted uranium", even though it is almost as radioactive as its parent compound. This is currently being used in conventional weaponry, e.g. for armour piercing bullets. Bullets containing this material combust on impact and release uranium as an aerosol into the atmosphere, i.e. the environment, where it remains mobile and radioactive for thousands of years.

One of the many radioactive by products of uranium used as fuel is plutonium, used in the production of nuclear weapons. Explosion of a nuclear weapon releases essentially all of its radioactive content and its many daughter isotopes into the environment, quite apart from the damaging effects of the blast. The fission reaction involved in the explosion generates a host of new radioactive isotopes, some of them not found in nature.

Spent fuel rods from reactors used in power generation require supervised short term and long term storage. These spent rods are far more radioactive than they were going into the reactor and require cooling for several years with circulating water to avoid a "meltdown" situation, i.e. an uncontrolled fission reaction and resulting explosion. No satisfactory method of long term storage has yet been devised. All of the spent fuel rods used to date are piling up in short term storage facilities, with significant potential for accidental contaminant release.

Dr. Linda D. Harvey B.Sc., M.Sc., M.D.

Health Professionals Call for an Independent World Health Organisation

An agreement signed in 1959 between the International Atomic Energy Agency (IAEA) and the World Health Organisation (WHO) prevents WHO from acting independently on issues related to nuclear radiation. Health professionals have denounced this unacceptable situation for more than ten years now, and call for the World Health Assembly (WHA) of WHO to revise the Agreement (WHA 12-40) in order to restore independence to WHO in accordance with its constitution.

The World Health Organization (WHO) works towards the resolution of public health problems and to this end, is mandated to assist in developing an informed public opinion (WHO Constitution, 7 April 1948). The WHO/IAEA Agreement (WHA12-40) renders WHO subordinate to the IAEA.

The principal statutory objective of the IAEA is to "accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world". The WHO/IAEA Agreement stipulates that "Whenever either organization proposes to initiate a programme or activity on a subject in which the other organization has or may have a substantial interest, the first party shall consult the other with a view to adjusting the matter by mutual agreement". The Agreement also provides (Article III) for the application of certain limitations for the safeguarding of confidential information. This confidentiality led to the non-publication of proceedings of the WHO Conference on Chernobyl, 23-27 November 1995. The 700 participants still await the Proceedings, which were promised for March 1996. Dr Nakajima, who was Director General of WHO at the time of the conference, confirmed in 2001 in an interview with Swiss Italian Television that censorship of these proceedings was due to the legally defined relations between the WHO and the IAEA.

For research projects, adjusting the matter by mutual agreement implies removing all freedom from WHO in the area of nuclear accidents. It is urgent for WHO to provide assistance to one million children, condemned to live in environments contaminated by radionuclides from Chernobyl. Up to 90% of the contamination is internal; and the rest external. Some internal organs accumulate huge concentrations of radionuclides. The resulting chronic contamination has very serious effects on health. In Belarus today, an incredible 85% of the children in contaminated areas are ill; before the explosion, this figure was 15%. The Chief Medical Officer of the Russian Federation noted in 2001 that 10% of 184,000 liquidators had died and 33% were chronically ill. The Ukraine provided 260,000 liquidators. According to a press release from the Ukrainian Embassy in Paris, dated 25 April 2005, 94.2% of them were ill in 2004. At the Kiev conference in 2001, we learned that 10% of these workers, half of whom were young military recruits had died, one third were invalids and the situation was deteriorating rapidly. The Ukrainian Embassy stated that 87.85% of the inhabitants of the contaminated territory were ill and that proportion increases every year.

Hundreds of epidemiological studies in Ukraine, Belarus and the Russian Federation, have established that there has been a significant rise in all types of cancer causing thousands of deaths, an increase in infant and perinatal mortality, a large number of spontaneous abortions, a growing number of deformities and genetic anomalies, disturbance and retardation of mental development, neuropsychological illness, blindness, and diseases of the respiratory, cardiovascular, gastrointestinal, urogenital and endocrine systems.

PGS Students

PGS Students Attend IPPNW London Conference

“Nuclear Weapons: The Final Pandemic – Preventing Proliferation & Achieving Abolition” – October 3–4, 2007 – London, UK

by Damon Ramsey, McMaster Michael G. DeGroot School of Medicine, 2009

With the generous student sponsorship of PGS, I was able to attend the International Physicians for the Prevention of Nuclear War Conference in London between October 3rd–4th, 2007 along with Shabnam Minoosephr from University of Ottawa. The conference was an absolutely amazing experience full of interesting talks and workshops, especially for a relatively new member to the IPPNW world. We were able to effectively network with the European student groups as well and have come back to Canada with some campaign plans such as a nationwide Target X project.

A particularly exciting and horrifying presentation was entitled «Climatic consequences of nuclear conflict-nuclear winter is still a threat» by Dr. Alan Robock of the University of Colorado. There was a strong emphasis on how, despite reductions in the American/Russian nuclear arsenals, each country still retains more than enough weapons to produce a nuclear winter. In reality, this rules out the possibility of a truly isolated nuclear war. Robock has used a modern climate model to predict how a regional nuclear war between emerging developing world nuclear powers would result in a significant cooling and reduction in precipitation lasting years, which would also drastically affect food supply across the world. Even a regional nuclear war using a 100-bomb scenario (0.03% of current nuclear arsenal) would result in a climate change unprecedented in human history. Therefore, it is important to promote nuclear war as a great

environmental threat, as great of a threat as global warming or ozone depletion, which dominate most environmental policy discussions.

This was just one among many informative and thought provoking talks that Shabnam and I were able to attend with the support of PGS student sponsorship. Thanks for the wonderful opportunity!



German medical students Katharine Bergmann and Alex Rosen set up a Target X project in London, UK.

Ten actions you can take to start changing your hospital into a green-hospital!

by Mark Ballard, UBC Medicine 2010

- Ensure that your hospital recycles and composts both paper and food waste appropriately.
- Turn down the heat in abandoned and unused rooms.
- Demand that the hospital stop building unnecessarily large atriums and rooms that require a massive amount of energy to heat.
- Set up a mercury thermometer exchange program so that members of the community may bring their mercury blood pressure cuffs into the hospital and exchange them for mercury free instruments.
- Request that old and new hospital washrooms be fitted with low-volume urinals and toilets.



- Check to see if the re-usable medical instruments, dishes and laundry are being washed by the least toxic most economical detergents.
- Develop a waste production tracking system to tally the amount of gaseous, liquid and physical waste that is generated by the hospital.
- Write, with administrators, an official environmentally preferred purchase plan to ensure green-hospital safe products are used with in your healthcare institution.
- Manage a simple training program for your hospitals' personnel on simple ways to reduce healthcare related environmental damage.
- Remember that many people want to green the world, but not many people actually know how to go about it, which makes you one of the leaders of tomorrow!



ICAN CANADA LIST OF ENDORSERS

We thank the following for endorsing the five ICAN demands:

1. Negotiated nuclear abolition

2. No new nuclear weapons

3. Reduction of threat of nuclear weapons use

4. Nuclear-free defence posture

5. Cease producing fuel for weapons

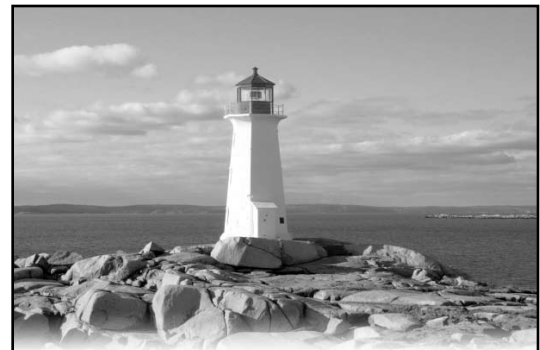
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Prescriptions for Survival: The Physician in the Global Village Exploring the Connections between Health, Militarism and the Environment

September 25 – 27, 2008. Royal Bank Theatre, QEII Hospital, Halifax, Nova Scotia. To be followed by board meeting September 27–28 at Oceanstone Retreat (near Peggy's Cove)

Keynote speaker: Dr Helen Caldicott

Co-Hosted By:

Physicians for Global Survival
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PHYSICIANS FOR GLOBAL SURVIVAL
 MÉDECINS POUR LA SURVIE MONDIALE
 CANADA



Three Day Spring Meeting 2008

Geneva Park YMCA Retreat Centre

Lake Couchiching, ON
Geneva Park Conference Centre
is just north of Orillia, ON, 90
minutes from Toronto. Located on
over 150 acres of pristine natural
peninsula and shoreline, it offers
activities for the entire family.

March 28 Continuing Medical Education Day

Medicine and Global Survival

9:00 am to 5:00 pm
Speakers and Workshops
Keynote Speaker 7:00 pm
Public welcome

Uranium Mining and Nuclear Power

Linda Harvey MD, health issues of
proposed uranium mine at Sharbot
Lake ON; Jim Harding Ph.D,
author of *Canada's Deadly Secret:
Saskatchewan uranium and the
global system*

WHO, Health and Climate Change

Elizabeth Bowen, MD, EdD.
International Society of Doctors for the
Environment Representative at Bali

Greening Our Hospitals

Mark Ballard, BSc, Med II UBC,
PGS National Student Representative

Networking on Climate Change:

Breaking Down Silos

David Howlett, BA, DMT,
Educational speaker and motivator

Evening Keynote Speaker

Nola-Kate Seymoar, Ph.D.

Building Healthy, Sustainable Cities

Dr. Seymoar is Executive Director
of the International Centre for
Sustainable Cities
Free Admission, Public Welcome

March 29th Strategic Planning Day

Medicine and Global Survival

9:00 am to 4:30 pm

Facilitator: Nola-Kate Seymoar PhD.
Executive Director International
Centre for Sustainable Cities

Come to this event

- Because you care about health
and global survival
- Because you want to take
effective action
- Because you want to work with
like minded doctors and medical
students on the most urgent
issues of our time
- Because you want to be energized

Help decide:

- What kind of organization we
want to be
- Which issues we will make
highest priority
- How we want to address
our issues
- What kind of staff we need
- What financial resources we need
- How we will get those
financial resources

March 30th Physicians for Global Survival Board Meeting

9:00 am to 4:30 pm

If you are interested in joining
the board of PGS, please contact
Nancy Covington by email:
nancy.i.covington@gmail.com

Newcomers are welcome to join us
for the full weekend or any part.

CME Day Registration

Physicians : \$100
Others : \$50
Students: \$15
PGS members: 20% discount

Accommodations (includes meals)

Single room: \$133/person/day
Double room: \$110/person/day
Student: \$90/person /day

Registration and Information:

Andrea Levy
Email: pgsadmin@web.ca
Phone: 613 233 1982 or
Website: www.pgs.ca