

VANA presentation – April 24, 2012, Toronto – 15 min.

Chernobyl, Fukushima, Darlington and Beyond

Angela Bischoff from the Ontario Clean Air Alliance has been asked to speak about the connection between nuclear power generation and nuclear weapons proliferation, as well as the Ontario government's plans to spend upwards of \$80 billion on new nuclear power projects. Event organized by Veterans Against Nuclear Arms, co-sponsored by the Hiroshima Day Coalition and Voice of Women

Props: Book Chernobyl; plum; leaflets; Atomic Accomplice; flag

Thanks Phyllis. I'm honoured to be in the presence of such esteemed, long time, committed peace and justice activists, and I'm grateful to be following in your footsteps.

First skill testing question of the day: What do Ukraine, Japan and Ontario have in common? Nuclear power.

This Thursday April 26th is the 26th anniversary of the Chernobyl nuclear disaster. An explosion and fire released large quantities of radioactive contamination into the atmosphere, which spread over much of Western USSR and Europe. It is widely considered to have been the worst nuclear power plant accident in history, although Fukushima may not be far behind. The battle to contain the contamination and avert a greater catastrophe ultimately involved over 500,000 workers and crippled the Soviet economy. 350,000 people were evacuated and resettled. Russia, Ukraine, and Belarus have been burdened with the continuing and substantial decontamination and health care costs of the Chernobyl accident. Estimated premature deaths range from 4000 by the World Health Organization, all the way up to a million by authors of this meta-analysis "Chernobyl: Consequences of the Catastrophe for People and

the Environment”. They document an increase in malignant diseases such as thyroid disease in children, and nonmalignant diseases such as increased cardiovascular disease and diseases of the central nervous system. For example, in Kiev, Ukraine, where before the meltdown up to 90% of children were considered healthy, the figure is now 20%, and in some Ukrainian territories, there are no healthy children. How obscene is that.

And now Fukushima Daiichi, Japan. This catastrophe is not yet over but it is already clear that the eventual cost will exceed \$300 billion. As many as 200,000 people face the prospect of never being able to return to their homes. Millions now fear the potential impacts of radiation on their children. TEPCO has so far managed to escape full liability and fails to properly compensate people and businesses that have been dramatically impacted by the nuclear accident. Families have been split apart, and have lost their homes and their communities. People have lost their jobs and have had their living costs doubled in some cases. No wonder there is a growing anti-nuclear movement in Japan. Currently just one of 54 of Japan’s nuclear reactors is operating, and it is expected to be closed later this spring. And the country is surviving! Imagine that!

OK so we can agree that nuclear power is dangerous. Accidents happen.

Second skill testing question: What does nuclear power have to do with nuclear weapons? Every nuclear power plant is a nuclear bomb-making factory. Every time uranium is fissioned inside a nuclear reactor, the deadly element **plutonium** is created. Plutonium and other byproducts of nuclear power plants are the essential ingredients of nuclear bombs. Any country with a nuclear reactor can in theory produce a nuclear weapon.

In 1945 when those first atomic bombs were dropped on Hiroshima and Nagasaki, just the US had such deadly power. Today, 6 decades later, 30 countries have commercial nuclear power reactors while 56 operate nuclear research reactors; of these, 22 can separate highly enriched uranium or produce plutonium – essential atomic bomb ingredients.

Enough fissionable material already exists to build another 200,000 nuclear weapons on top of what we already have. And that's growing every year by 7,000. **All this under the cover of nuclear power.**

The original five nuclear weapon states¹ are now nine² and may soon be joined by a tenth³. All of the newcomers acquired their weapons under the guise of developing civilian nuclear power programs. As just one example, India covertly used plutonium from a Canadian-supplied reactor for its inaugural blast in 1974. Today India has 60-80 nuclear warheads, yet still refuses to sign the Nuclear Non-Proliferation Treaty, the NPT. Despite this, Canada intends to make major uranium exports to this nuclear weapons state, **and** its regional atomic arch-rival, Pakistan. By contrast, Australia has refused to sell uranium to these non-NPT states. Shame on Canada.

The world is already flush with atomic bomb ingredients, but international treaties safeguard only about 1% of the world's highly enriched uranium and only a third of the world's plutonium. Should we feel safe? Think – just one plum-sized sphere weighing 8 kilograms is all that's needed to make an atomic bomb that could be delivered by bicycle, backpack or briefcase. Even a minute amount of illicit diversion, theft or black market trade is intolerable, yet inevitable.

¹ US, Russia, UK, France and China (signators to the NPT)

http://en.wikipedia.org/wiki/List_of_states_with_nuclear_weapons

² India, Pakistan, North Korea, Israel (all non signators to the NPT)

³ ? Iran, Syria (suspected of having a nuclear weapons program)

The fact remains that the skills and materials used for nuclear power are indistinguishable from those needed to build nuclear weapons. Can we stop this vast flow of materials, equipment, knowledge, and skilled people from creating do-it-yourself bomb kits wrapped in innocent-looking civilian disguise? The Nuclear Non-Proliferation Treaty has only slowed, not prevented, the spread of nuclear weapons. Not surprisingly, given the international problems of weak treaties, inspections and sanctions, the potential for nuclear terrorism continues to grow and the Doomsday clock ticks on.

Third skill testing question: How would a world without nuclear power impact the nuclear weapons industry? Atomic bombs would become harder to get, more conspicuous, and politically costlier to be caught with because their purpose would be unambiguously military. This might not make proliferation *impossible*, but it would make it more difficult to advance, and much easier to detect.

And that's why phasing out nuclear power is a necessary condition for nonproliferation. **Atoms cannot be made to work for peace without making them available for war.** The peaceful and military atom are inextricably linked: we must learn to live without both.

Fortunately, we can! We don't need nuclear power. **Fourth skill testing question:** How could we meet our electricity needs without nuclear power? Renewable energy technology has improved in recent decades and economies of scale have brought costs down such that they're lower cost than nuclear as well as renewable and plentiful, and have a much lower energy footprint, a necessity in this era of climate change. They're also faster to implement, and don't create deadly, long-lasting waste, or safety and security concerns.

Indeed, the market has spoken: nuclear power investments have been dwarfed by cheaper, faster, less risky, decentralized competitors. Called "micropower", these options include cogeneration as well as renewable

sources of energy like solar, wind, geothermal, hydro and of course conservation.

The shift away from centralized nuclear and fossil fuel plants of the last century to renewables and efficiency is now well underway. In recent years, global green power investments have delivered 30 times more energy than new investments in nuclear plants. Solar panels and wind turbines are getting cheaper, while nuclear construction costs soar.

Yes, green power and efficiency **can** meet our global energy needs. We *have* the technology – **and** they can deliver carbon reductions far faster, at less cost, creating more jobs and economic benefits while strengthening world security and nonproliferation. So what are we waiting for? This is our **golden opportunity** to marry environmental, market and security realities with our stated non-proliferation goals.

But if industrialized nations like Canada, with all our wealth, infrastructure and skill, claim we need more nuclear power, then all other countries gain an excuse to follow suit, and we all lose. On the other hand, if we pursue non-nuclear alternatives that work better and cost less, as the market confirms, then less endowed countries can pursue the green energy path too – and we all gain. Germany aims to be nuclear-free by 2022. Japan, Italy, Switzerland, Belgium and others are all reconsidering their nuclear plans in the wake of Fukushima. The world will be safer for this shift in energy policy.

Instead of exporting uranium around the world as Canada does under the guise of “atoms for peace”, why not export “sunbeams and nega-watts for peace?” This is the surest path to a richer, fairer, cooler, safer world. Who wouldn’t be in favor of that?

We can hope that with the sale of AECL, there will be fewer CANDU reactors endangering the planet. That’s a good start. But we also have to fight **and win** the battle against 2 new reactors proposed for Darlington as well as the planned rebuild of 4 existing reactors at Darlington AND 4

rebuilt reactors at Bruce – together totaling upwards of 80 billion of your dollars!

As you know, every dollar spent on nuclear is a dollar not spent on green energy. Imagine those dollars being invested instead in ushering in the renewable energy age! That's what I choose. Renewables like wind, solar and geothermal, hydro imports from Quebec, conservation and efficiency to reduce demand. These energy options are smart energy choices of the future, and they offer us a nuclear-free-future.

Help us win this one. Take a stack of these leaflets and get your friends to sign them. Pick up a copy of Paul McKay's book Atomic Accomplice, which spells out the connections between nuclear power and nuclear weapons - read it and then pass it on. Support the Ontario Clean Air Alliance. I have a table over there where you can sign onto my email list and grab some materials.

We must win this energy battle. Our beautiful planet earth is blessed with infinitely abundant solar and wind and water resources that can deliver pollution-free energy, prosperity and peace. Indeed it already is. So let's celebrate as we say **No More Nuclear**. Or as you said in the 60's, **Nuclear Power, No Thanks!** And may I add, **Nuclear Weapons, No Thanks!**

I'd like to close with the words of ex-Japanese Prime Minister Naoto Kan. He said, "I deeply regret believing in the security myth of nuclear power."

Fifth skill testing question: What will you do to ensure that Ontario wastes not one more dollar on nuclear expansion?