

***For a Nuclear Free, Peaceful, Just, Sustainable World Conference***  
*Riverside Church, New York City – April 30 – May 1, 2010*

***Workshop : Nuke Power is THE way to Nuclear Weapons***

Workshop speakers.

“Taking on Nuclear Power: Pitfalls and successes at Entergy Vermont Yankee Nuclear Power Plant and beyond”: **Hattie Nestel** of Shut It Down Affinity Group has been arrested 7 times at Vermont Yankee.

Nuclear Disarmament Day observed on August 6 seeks a change of heart in the U.S. and the world: As co-chair of Women’s International League for Peace and Freedom Disarm! Dismantle the War Economy Team, **Margaret Harrington** is active in Vermont where peace activists and Vermont legislators face down the monstrous nuclear weapons/nuclear power industry.

**Ursula Gelis** is active in the Women’s International League for Peace and Freedom, Oslo, Norway branch and participated in the Aldermaston Blockade in England and the anti-NATO demonstration in Strasbourg, Germany.

Proposition One in 2010, the Economic Conversion Act: **Ellen Thomas** campaigns throughout the United States at nuclear power and nuclear weapons facilities to bring her Let the People Decide voter initiative to the public, a major positive campaign to change how U.S. taxpayer money is spent, on education, healthcare and clean energy, rather than nuclear weapons/power.

**Jay Marx** joins Ellen Thomas on the Proposition One Campaign and comes to New York on their Walk for Nuclear Disarmament from Washington D.C. where he continues the 29 year nuclear disarmament vigil in front of the White House begun by William ‘Doubting’ Thomas.

**Dominique Lalanne** is a nuclear physicist, chair of Abolition 2000 Europe, co-chair of Armes nucléaires STOP-France, has contributed to many deliberations of the European Parliament against nuclear weapons and more recently to the one for supporting the Nuclear Weapon Convention, and is an expert on nuclear disarmament and links between nuclear power and nuclear weapons.

**Kevin Kamps** serves as Radioactive Waste Watchdog at Beyond Nuclear in Takoma Park, Maryland, which aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abolish both to safeguard our future, while advocating for an energy future that is sustainable, benign and democratic.

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Dominique Lalanne’s conference talk:

The links between nuclear power and nuclear weapons are numerous. In fact all aspects of nuclear power have links with weapons. I am going to present those that are shaping our world in its industrial, social, economical and political aspects. Of course the historical and technical aspects of research and development carried out in the 70 past years must also not be forgotten.

First let us go through the history. Frederic Joliot-Curie discovered the chain reaction in 1939, making a bomb possible. He immediately filed a patent in order to be the ‘father’ of any use of this nuclear process. The context of World War II and pressure from brilliant scientists, like Einstein, led to the Manhattan project which developed two bombs, one using uranium and the other plutonium. Historically therefore, nuclear science was first used for bombs.

Such uses having been "technically successful", the cold war stimulated continued attention to nuclear issues, but with the only interest being the development of technologies with possible links to bombs. Those technologies included not only the enrichment of uranium, reprocessing for plutonium, nuclear power for submarine engines (that gave rise to the PWR technology in nuclear reactors), and fusion reactions (for the H bomb), but also missiles and missile detection by radar or satellite. More recently research has been done on the breeder reactor to get military grade plutonium easily and on lasers for directly triggering the fusion bombs planned in the future (NIF in the US and Megajoule in France).

The first link requiring comment is a social one. Two military characteristics are: secrecy and an absence of democracy. Those are also the two characteristics of nuclear power. Democracy is absent because of the powerful nuclear lobby working behind the scenes, and this lobby is very strong because of its weaponry development role. In most cases, decisions involving nuclear facilities are made without any democratic process. And this is also because of the dangers of accidents (Three Mile Island or Chernobyl types). With this level of risk it is difficult to ask for a favourable answer from the people, unless lying becomes normal practice. In both areas there is no concern for the long term future, with nuclear waste issues possibly not solved (this is a nuclear physicist speaking) and with the planet being rendered non-viable after a nuclear war. That's a common feature of both military and civil nuclear devices or plants: their existence implies no care for the future. For the military that means the apocalypse is possible, and for the civil authorities, radioactive pollution with waste risking the lives of future generations is acceptable. With both nuclear power and nuclear weapons, our societies are placed at risk. More generally, the whole world and the whole of humanity are at risk.

Let us study now the political and economical links. Nuclear technology is a very advanced science and so states with this skill are in a dominating world position. Basically it is the North in opposition to the South. In the past military force was the usual way to dominate. That was colonialism. But at the end of the twentieth century, classical colonialism was officially working no more. A new version, neo-colonialism, can work only by economic action or political power. So this makes advanced technologies important to maintain the North-South gap and hence the asymmetrical dependence. Nuclear is the best way to achieve this. And as there is the chance of weaponry if nuclear plants are available, the technology becomes desirable for the recipient. And it is difficult for States to refuse anything called "development". So, as many examples prove, India, Pakistan, North Korea, and other states got the bomb while officially working on nuclear energy. Some, such as South Africa, Argentina and Brazil, prepared a bomb but then cancelled their weapons programmes, keeping the skills, and nuclear power, just in case...

Political domination is perfect in the nuclear case because it can be argued that the reason for such "Northern dominance" is technological, so avoiding the criticism of neo-colonialism. And with the IAEA it seems to involve international rules. So nuclear is a new way for 'advanced' States to dominate the Third World, both by offering nuclear power and by threatening with nuclear weaponry. Let us just consider the NPT, a perfect example illustrating the links. This treaty contains three "pillars", free access to nuclear energy, no access to proliferation, and nuclear disarmament. The first pillar, free access to nuclear energy, is designed to sell the treaty to the Third World, the second, non-proliferation, is to ensure that domination is long term, and the third, nuclear disarmament, is a lie.

For the future I would like to give you some information on projects and current facilities under construction.

My first comments are on nuclear fusion research and its ignition by laser. As you know current nuclear bombs involve a first ignition by a fission bomb using plutonium or uranium. That is because a fusion reaction with hydrogen needs 10 million degrees which is impossible to reach otherwise. The new idea is to achieve this condition with lasers and so avoid the first stage (of fission). That is very promising for the military because currently the first stage creates an explosion of at least 1000 tons of TNT (due to a need for what is called the "critical mass"), and so "small" nuclear bombs are not possible. A laser trigger makes it possible, even with small quantities of hydrogen, so the goal of this research is to produce bombs with yields in the range 10 tons to 1000 tons of TNT, eroding the difference between conventional and nuclear bombs. Two such facilities are under construction, one in the US, the National Ignition Facility, NIF, and the other in France, the Mégajoule Laser. NIF has started its first tests, and Mégajoule will do so in 2012.

The second key current research topic involves the breeder reactor. These are reactors using a plutonium core in order to increase the neutron flux. Around the core is installed an uranium blanket (using natural uranium or depleted uranium). In this uranium, under the influence of the neutron flux, there is a production of plutonium 239, which is military grade plutonium. But this plutonium 239, if it remains in the neutron flux, is transformed into plutonium 240, 241, etc, which are not usable for a

fission reaction. So these plutonium isotopes are pollution with respect to the military grade one. With a breeder reactor the blanket is easy to remove in order to extract the "good" plutonium, so this makes breeder reactors much more interesting than other reactor types. With this type of reactor, military grade plutonium is available for all. That makes proliferation much easier and so this is an easy reactor to sell to many States. And this technology is also much more complicated and so neo-colonialism is much stronger. Better for the seller!

To conclude I just want to add that it is clear that nuclear power, both now and in the future, and it may be even more so in the future than it is now, is just a way to prepare for a military use of nuclear technology. A lot of other technologies exist for producing electricity or heat, including wind and solar devices - to mention just those which are abundant. But the need for the dominating States to keep that technological dominance is their private number one argument for proposing the nuclear option.

Our goal - for a nuclear weapon free world - must make clear : we need a nuclear totally free world.

That is my final message.