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Sent: Friday, 18 November 2005 4:14 AM
To: EET, Committee (SEN)
Subject: Inquiry into Commonwealth Radioactive Waste Management Bill 2005

The Chair - Senator Judith Troeth
Senate Employment, Workplace Relations and Education Committee
Inquiry into Commonwealth Radioactive Waste Management Bill 2005

Dear Senator Troeth and Colleagues,

I am **very** concerned about the rushed developments for the proposed Nuclear Waste Dump in the Northern Territory.

My Mechatronic Engineering background and my intense fascination with Health Science and Physics has lead me to studying the Nuclear Physics and its extremely detrimental health effects on all life forms. I plead to you, the members of the senate, to realize the enormous significants of this pivotal moment of the health of Australia's future.

Firstly their appears to be a misnomer about the categorization of the radioactive waste to be transported and stored. The bill does not assure that only 'low' and 'intermediate' level radioactive waste is destined for the NT. Spent fuel rods from Lucas Heights are classified by the NSW EPA and US regulatory authorities as HIGH LEVEL radioactive waste, and even when reprocessed remain highly radioactive

The definition given by Idaho National Laboratory is:

High Level Radioactive Waste — *Irradiated reactor fuel, liquid wastes resulting from operation of the first cycle solvent extraction system or equivalent, and the concentrated wastes from subsequent extraction cycles or equivalent in a facility for reprocessing irradiated reactor fuel, and solids into which such liquid wastes have been converted (10 CFR 60.2).*

Is this not reason enough to question the Bills "integrity" ?
The Specifications are not exclusive !

Another concern is there seams to be no provisions in this bill to limit it to "Australian" nuclear waste. If it proceeds in its current form, years later, its true capabilities of an **International Waste Dump** can take form with minor amendments not subject to large scale debate. There are many reasons why I oppose Australia to be an International Waste Dump.

It is condoning the use of Nuclear Power. A large assumption is that nuclear power is safe but the fact is that it has required time for the evidence to reveal itself because damage to the cell division gene requires 2 to 60 years before that cell divides out of control.

Naturally there is plenty of evidence detailing these issues.

A significant number of reports claiming there is evidence of ill health effects surrounding Nuclear Power Plants, have been countered by reports from parties with vested financial interests. Why is it that there are so many people speaking out with strong evidence but not being heard ? This situation should be studied in depth

before viewpoints are decided.

There are so many problems with nuclear power, waste, nuclear weapons proliferation, spills, overflow of tailings dams, low level ionising emissions from power plants etc. More than i could list here !

Thirdly Insurance.

In the case of a catastrophic event such as a terrorist attack on transportation or any form of contamination leak through collision of vehicles or a train derailment, **who is going to pay for this permanent error ?** This will be another cost to the tax payer, health of civilian populations for thousands of years to come.

How much money will some uneducated person accept, to unknowingly sacrifice his or her health to clean up the mess ? There are always victims. Would you accept them to be your family members ?

There is currently no protection from those cleaning up so called "intermediate level waste" Gamma and Beta Radiation penetrates the suits, exposing the cleaner.

Finally, How can an affected person prove in the court of law that the very sparse array of genetic disorders, malignancies and degenerative diseases caused by radioactive contamination were ever caused by one particular contamination event.

Almost never in the nuclear industries disastrous history, have they ever admitted to being the cause of somebodies ill health. The Industry can claim innocent of any wrong doing as long as they never do any studies into the problems. They just didn't know, so they can't be blamed.

Measurements of lethal doses of radiation are calculated on a instantaneous external exposure. This approximation is not sufficient in all circumstances. A long term exposure where the radioactive analogues (eg calcium and potassium analogue isotopes) become infused into the body with ingested food, water or inhaled dust. These dose's are significantly higher in the long term.

In cases of low level radiation exposure, the time taken for the exposed to degenerate enough to be diagnosed may be a significant amount of time. It would be difficult to prove the actual cause degeneration hence there is no chance of compensation.

How will the people living along these transport routes and around the waste dump be protected if under the circumstances fire dispersed the radioactive particulates throughout the surrounding regions, farmlands and water bodies. "There is no safe dose"
Here is Evidence of No safe dose explained briefly.

EXTERNAL PARADIGM PROBLEMS

The conventional view of radiation risk is that, irrespective of whether radiation originates inside or outside the body, cancer risk is in strict proportion to the average energy it delivers into body tissue. For external radiation it is valid to assume an average, because body tissue is uniformly irradiated – for example by cosmic rays, X-rays, or an exploding A-bomb. Averaging is also valid for some radioactive substances even when they are inside the body because they are evenly distributed in tissue. Some are natural (e.g. Potassium 40) and some are man-made (e.g. Caesium 137) However, some other internal emitters, Plutonium and Uranium for example, create a very different type of exposure, since they exist in the form of microscopic hot particles. These do not exist

naturally but they are now common in the environment as a result of routine discharges from power stations, reactor accidents like Chernobyl, nuclear weapons, and the military use of Depleted Uranium ammunition. With diameters of less than a few millionths of a metre they are highly mobile and can be inhaled or swallowed. Once embedded in body tissue they deliver their energy so locally that the few cells immediately next to them are chronically irradiated at very high energies while the rest of the body gets no dose at all. In such circumstances the concept of an "average dose" is nonsensical

What level of exposure is necessary in this bill, before the victims will be compensated ?
It is an impossibility to answer this question with the above information.
It remains evident that the waste should not be made in the first place....or at least left where it was made to void the risk of contamination during transport.

Please do not let this become a reality !

The Aboriginal families of this country are once again being forced to give up there traditional land. They obviously have no say in it, no say in it at all !

I wish i was more fluent in my delivery but i can't get over how the complacency of the Nuclear Industry is a risk of near permanent pollution and the rising rates of cancer are apparently no consideration compared to the potential profits of the country.

In summary this bill needs to be completely abandonment.

It is a foot in the door for an International Waste Dump and should be stopped.
The safest and only responsible way to deal with the problem of Australia's radioactive waste, most of which is from the unnecessary Lucas Heights reactors in Sydney, is to store it in the safest possible way near the source of the waste, and to stop producing more and more of it.

Please think about this quote into consideration in reference to the question, is this a truly democratic process when good public policy is developed through negotiation and inclusion - not imposed by governments determined to get their way no matter what.
Noam Chompsky has been regarded as "the most important intellectual alive"

Here is his summary of our operating "Democracy" **[my comment]**

*"Modern industrial civilization has developed within a system of convenient myths **[nuclear power will save us from global warming, a myth]**. The driving force has been individual material gain, which is accepted as legitimate, even praiseworthy, on grounds that private vices yield public benefits in the classic formulation. **[Senator Nigel Scullions position on the benefit of the NT financially]** It has long been understood very well that a society based on this principal will destroy itself in time. It can only persist with whatever suffering and injustice it entails as long as it is possible to pretend that the destructive forces that humans create are limited, that the world is an infinite resource and that the world is an infinite garbage can. **[over 250,000 years of radioactivity to be contained.....do you really have any idea how much will change in that duration of time ?]***

At this stage in history one of two things is possible. Either the general population will take control of its own destiny and will concern itself with community interests guided by values of solidarity, sympathy and concern for others or alternatively there will be no destiny for

anyone to control. As long as some specialized class is in a position of authority, it is going to set policy for the special interests that it serves. **But the conditions of survival let alone justice require rational social planning in the interests of the community as a whole** and by now that means the global community. The question is whether privileged elites should dominate mass communication and should use this power as they tell us they must, namely to impose necessary illusions to manipulate and deceive the "stupid majority" and remove them from the public arena. The question in brief is whether democracy and freedom are values to be preserved or threats to be avoided. **In this possibly terminal phase of human existence democracy and freedom are more than values to be treasured, they may well be essential to survival.**" -Noam Chomsky

Please consider the interests of the people, whose true happiness is dependant on their health, not on the financial benefit of a few.

Christopher Moore

Sources

Chris Busby <http://www.llrc.org/> then click on [infant leukaemia after Chernobyl](#)