

Nanticoke Nuclear Proposal

The Most Important Decision
Norfolk Council Will Ever Make

The Spent Fuel Problem

“(R)adioactive waste is contained and kept under close supervision until its concentration is equal to background levels. The required isolation period may be for tens, hundreds or even thousands of years”

Source: Bruce Power Fact Sheet #5

“Hawthorne said the spent waste is stored on-site for the first 150 years and then moved.

...He also pointed out all countries in the world, with the exception of Canada and the United States, reprocess the spent fuel to derive more energy.”

*Source: **Simcoe Reformer**, March 2, 2009*

reporting on a public meeting held in Langton

The First 150 Years

*“Hawthorne said the spent waste is **stored on-site for the first 150 years** and then moved.”*

- **20 years** in water-filled cooling tanks needed to prevent meltdown.
- **130 years** in dry cask storage, on site.
- Manufacturers of dry cask storage units estimate lifespan of casks to be **100 years**.
- In **120 years**, our great grandchildren could be faced with leaking dry casks of highly radioactive spent fuel.

The First 150 Years

- On-site stored spent fuel must be **guarded for 150 years by paramilitary SWAT teams**, equipped to handle all threats; i.e. terrorists, rogue states.
- Lifespan of new generating station is estimated at **60 years**.

Will company have any interest in guarding spent fuel **90 years** after plant is no longer earning profits?

Armed Security of Radioactive Stockpile

**TERRORIST
TARGET!**

Coming Soon to Your Neighborhood?



“Bruce Power takes the occasion of these meetings to boast of its **readiness in the face of all threats.**”

*Monte Sonnenberg, Simcoe Reformer,
March 20, 2009*



"We have also stated that we have an **armed `nuclear response team' which is equivalent to a SWAT team** on 24/7/365 which only the very large police departments - that is, Metro Toronto - have."

James Scongak, Bruce Power spokesman

Quoted in the Brantford Expositor, March 20, 2009

No Long Term Storage Site for Spent Nuclear Fuel

“Hawthorne said the spent waste is stored on-site for the first 150 years and then moved.”

Moved where?

- Canada’s Nuclear Waste Management Organization (NWMO) **just starting site selection process**; seeking a willing host community for spent fuel storage. Estimated cost is \$16-\$24 billion.
- NWMO did NOT have the mandate to look at how wastes from a Nanticoke facility would be managed.
- US spent 20 years and \$13 billion on Yucca Mountain before declaring it **unsuitable for spent fuel storage** in 2009.
- Highly radioactive spent fuel will be **kept on power plant sites** until a permanent facility is built.

Moved Where?

- This month, New Brunswick ruled itself out as a potential site.
- In 2008, the Quebec National Assembly passed a resolution against accepting high level waste.
- Sudbury area MPP Rick Bartolucci:
"There is no dollar figure, no salary and no number of jobs that would be worth risking the health of our children, our landscape and our future."
- Without a willing host, such a facility will NEVER be built.

Canada's Nuclear Waste Management Organization (NWMO) states that high level nuclear waste must be isolated for **one million years**.

We've got the first 150 years figured out (sort of).

The next 999,850 years....



Reprocessing?

*“(Hawthorne) also pointed out all countries in the world, with the exception of Canada and the United States, **reprocess the spent fuel** to derive more energy.”*

- The US refuses to reprocess fuel due to the **risk of nuclear weapons proliferation**. Reprocessing extracts plutonium, better suited for nuclear weaponry than for nuclear energy.
- Canada followed the US lead and adopted a **national policy against reprocessing nuclear fuel** in 1979.
- Reprocessing is **not an option**, merely a **distraction**.

Britain's Reprocessing Plant Problems

Thorp nuclear plant may close for years

Faulty reprocessing facility threatens UK atomic plans

Critics call for plug to be pulled on 'white elephant'

- The company that runs the Thorp nuclear reprocessing plant **admitted that it may have to close for a number of years** owing to a series of technical problems.
- Under strict orders from the government's safety watchdog, the Nuclear Installations Inspectorate, the plant's operators, Sellafield Ltd, is expected to have **little option but to mothball the reprocessing plant for at least four years.**

*Source: **The Guardian***

<http://www.guardian.co.uk/environment/2009/may/19/thorp-nuclear-plant-white-elephant>

Japan's Reprocessing Plant Problems

Delays at Japan's ill-fated nuclear plant

- Rokkasho Reprocessing Plant **plagued by technical difficulties.**
- **Out of action for six months** from the end of 2008 due to problems in its vitrification facilities.
- **Attempts to restart the plant failed** last November.
- In January, 2009, **150 litres of high-level liquid radioactive waste leaked.**
- At full capacity, Rokkasho can process **800 tons** of spent fuel and extract **8 tons** of **plutonium** from it annually.

NOTE: $8/800=1\%$; Reprocessing only extracts 1%. 99% is new, even more toxic, liquid, radioactive waste.

Source: United Press International, Asia Division

http://www.upiasia.com/Politics/2009/05/20/delays_at_japans_ill-fated_nuclear_plant/3478/

High Childhood Leukemia Rates Near La Hague

- **BACKGROUND:** A previous study has suggested an **increased incidence rate of leukemia** from 1978 to 1992 in people aged 0 to 24 years and living in the vicinity of the La Hague nuclear waste reprocessing plant.
- **CONCLUSION:** This study indicates an **increased incidence of leukemia** in the area situated at less than 10 km from the plant. Monitoring and further investigations should be targeted at acute lymphoblastic leukemia occurring during the childhood incidence peak (before 10 years) in children living near the La Hague site and other nuclear reprocessing plants.

Source: Journal of Epidemiology and Community Health

<http://jech.bmj.com/cgi/content/abstract/55/7/469>

How NOT to make a decision on a nuclear power plant

- A speculative promise that the waste will find willing host.
- A misleading promise that waste will eventually be reprocessed.
- Hope that future generations will learn to deal with the toxic legacy we create.

Not Needed – Not Understood - Not Wanted

Ontario Energy Minister George Smitherman:

“It’s not the province of Ontario’s intention to be involved in the encouragement or purchase of any power that might theoretically be created by such a facility.”

*“**no intention of buying power from them.**”*

Haldimand-Norfolk MP Diane Finley’s survey:

*“Do you support the Conservative Government’s commitment to develop Canada as a clean-energy superpower, with a particular focus on **renewable forms of energy such as nuclear**, hydroelectric, and biomass energy for both domestic consumption and **export abroad?**”*

Haldimand-Norfolk MPP Toby Barrett’s surveys:

*“indicate a **majority against the proposal** for nuclear at Nanticoke. To the question of, ‘Are you in favour of nukes at Nanticoke’, **76 per cent have answered ‘No’**, with 23 per cent voting ‘Yes’.”*

The Most Important Decision Norfolk Council Will Ever Make

Remain “neutral,” allow plant to be built and accept
1000’s of years storage of deadly radioactive waste.

FYI: 97% of Environmental Assessments are
approved.

or

Endorse construction of plant and accept 1000’s of
years storage of deadly radioactive waste.

or

Represent the clear majority of constituents and
declare Norfolk County an
unwilling host for a nuclear power plant.