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Oral Presentation

Written submission from James Deutsch

Exposé oral

Mémoire de James Deutsch

In the Matter of the

À l'égard de

BWXT Nuclear Energy Canada Inc., Toronto and Peterborough Facilities

BWXT Nuclear Energy Canada Inc., installations de Toronto et Peterborough

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Application for the renewal of the licence for Toronto and Peterborough facilities

Demande de renouvellement du permis pour les installations de Toronto et Peterborough

Commission Public Hearing

Audience publique de la Commission

March 2 to 6, 2020

Du 2 au 6 mars 2020

Canada

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Intervention for CNSC hearing on the BWXT plant relicensing, Toronto, March-2-3, 2020.

I receive my MD from Yale University, and obtained a PhD in biochemistry from California Institute of Technology, followed by a postdoctoral fellowship at the University of California Medical Centre, San Francisco. I teach in the Faculty of Medicine at the University of Toronto.

I oppose the relicensing of the BWXT plant for the following reasons:

1. Personally, I have family living not far downwind from the plant, where there are documented ongoing releases of uranium dust into the environment. My 10 years in the biochemistry lab working with radioisotopes confronted me with the constant possibility of careless lab technique resulting in potentially life-threatening radioactive contamination.

2. It is public knowledge that regulation of the nuclear fuel chain (including mining, milling, transport, and processing of uranium dust; nuclear fission in reactors; decommissioning of reactors; and management of the perpetually-hazardous nuclear waste) has been subject to interference and influence by industry and partisan politics. At best, a massive increase in staffing would be required to monitor the far-flung facilities, and nevertheless would still be inadequate to the severity of the potential harms to people and life.

3. The mining of uranium has been, and continues to be, at the expense of Indigenous peoples in the North, who have suffered severe health effects directly from exposure to the uranium and other toxic elements unearthed in the mining, and indirectly from the impacts of the intrusion upon their sacred and traditional lands.

4. Canada has a sordid history of contributing uranium and technological knowledge to the Manhattan Project producing the bombs dropped on Hiroshima and Nagasaki, and continuing to the more recent past to the development of the nuclear capability of India, which, among other hotspots in the world today, vastly increases the threat of nuclear war. The Bulletin of the Atomic Scientists has just reset the Doomsday Clock to 100 seconds before midnight. I was dismayed to learn that BWXT, which recently took over the plant from GE-Hitachi, is an American company with strong ties to the revived US nuclear weapons agenda, budgeted for over $1 trillion.

5. A major rail line used to transport tanker cars of highly flammable oil and other chemicals passes adjacent to the BWXT facility, which I understand has a high-pressure hydrogen tank on site. My research several years ago revealed an inadequate emergency plan should there be a derailment anywhere along the line, let alone at the plant site: it is a disaster waiting to happen, and it would be essentially a “dirty bomb” requiring mass evacuation.

6. I am a member of the board of Science for Peace, opposed to all uses of nuclear material other than medical, in the understanding that there is no “peaceful use” of the power of the atom, and that historically and currently, the nuclear power and nuclear weapons industry are intimately connected. It has been documented that medical radioisotopes can be generated by particle accelerators, and that nuclear reactors are not necessary.

7. The BWXT facility is situated in the midst of a growing residential area near downtown Toronto. Many residents have come forward with serious concerns about the impact on their health, with some moving away.

8. Any facility along the entire nuclear chain is a potential target for terrorism, especially the cooling pools for spent fuel rods. The latter are also at risk should there be a prolonged power outage or disruption in fuel supply for emergency generators.

Some counter arguments and my responses follow:

1. Nuclear power is essentially safe.

The public faces increasingly strident pro-nuclear disinformation. Regarding the uranium mined, transported to and processed at the facility, the industry typically downplays the risk, distracting the public by describing the external radiation has comparable to the exposure during an airline flight. It is the internal exposure, via inhalation or ingestion of the microscopic particles in the uranium dust, or via the radioactive decay products (daughters), that matters, in terms of damage to the genetic material, which can result in cancers, birth defects, and weakening of the body's defences. Once subject to nuclear fission, the over 200 radionuclides created, including bomb-ready plutonium, are nowhere near being safely managed, especially for the countless generations going forward.

2. Nuclear power is cheap and plentiful, and necessary to fight climate change.

They publicized cost of nuclear power ignores the woefully inadequate insurance (meaning that the taxpayer is liable for any catastrophe) and the subsidized or hidden costs, including decommissioning and stewardship of wastes into perpetuity. The urgent timeline of the climate emergency, and the greenhouse gas emissions from the entire nuclear chain, contradict the assertion of the industry that nuclear power is "green" and can serve the goal of slowing the accelerating climate destabilization. Nuclear power is not green, from the mining right through to the cement and steel needed in reactor construction. In addition, the approval and construction process takes years, which we do not have. Climate system disruption is now; indeed, feedbacks have already been triggered which will greatly exacerbate the current situation. The difficult news is that hope for our future rests on immediate conservation and rationing, a shift to intra- and inter-urban public transportation, retrofitting of buildings, and essential uses of alternate forms of energy.

3. Good jobs at the BWXT plant, and in the nuclear industry as a whole, will be lost.

Workers currently in the industry will be needed for the immense and painstaking process of decommissioning the BWXT plant and other facilities of the nuclear fuel chain, and for the responsible management of the perpetual radioactive legacy that short-sightedness has imposed on humanity. Nuclear workers are well-compensated, as they should be. Those who cannot find work in the nuclear dismantling will be needed for the activities outlined in #2 above, and in critical infrastructure, and ecosystem restoration. Regardless of the defined role of any regulator, it is only right to support a just transition to safer and ecologically necessary employment. Societal and government support for a just transition is necessary for continued, well-compensated and secure employment, for these and other workers in urgently phased-out energy industries.

I therefore strongly oppose the relicensing of the BWXT uranium pellet plant.

Sincerely,

James Deutsch, MD, PhD, FRCPC

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