Nuclear Governance in Canada – a corporate takeover?

By Gordon Edwards, August 2019 *article to appear in the Autumn 2019 issue of "The Turning Point"*

Last November, Canada's Ministry of Natural Resources (NRCan) released a "Road Map" signalling its support for a consortium of multinational corporations, headed by SNC-Lavalin, to build, test, and deploy a new generation of nuclear reactors. <u>https://smrroadmap.ca</u>

There are no customers yet for these "Small Modular Nuclear Reactors" (SMNRs or SMRs). The Union of Ontario Indians opposes them altogether. But NRCan wants them installed widely, mainly in the north, to accelerate resource exploitation – mining, oil and gas exploration, bitumen extraction – and to replace diesel in isolated settlements including indigenous communities.

This is the brainchild of SNC-Lavalin and its partners, Fluor and Jacobs. All three are accused of corruption: SNC-Lavalin gave illegal donations to election campaigns and bribes for Montreal's Superhospital.

In 2015, the Harper government put this consortium in charge of federally-owned nuclear facilities and Canada's \$8 billion radioactive waste liability. Billions of tax dollars have been pouring into its coffers via Atomic Energy of Canada Limited (AECL), a crown corporation whose staff was slashed from 3600 to 40. Tasked with reducing Ottawa's radioactive liability quickly and cheaply, the consortium – operating as Canadian Nuclear Laboratories (CNL) – launched a series of alarming initiatives.

• CNL proposes to pile a million cubic metres of mixed radioactive waste in a huge earthen mound on the surface, 5 to 7 stories high, covering 11 hectares at Chalk River, less than one kilometre from the Ottawa River. This scheme, a drastic departure from previous plans, flies in the face of international guidelines. It is opposed by 140 municipal resolutions including 82 from the Montreal region.

• CNL plans to "entomb" the radioactive remains of two reactors beside the Ottawa and Winnipeg Rivers – dumping the contaminated entrails into the sub-basement, then flooding it with grout, creating permanent radwaste mausoleums. This approach violates promises that reactor sites would be returned to "green field" status, and defies warnings against "entombment" by the International Atomic Energy Agency (IAEA).

• CNL is moving federally owned radioactive waste from Pinawa (Manitoba), Douglas Point (Ontario), Bécancour (Quebec), and Port Hope (Ontario) to Chalk River. 500 of the 2000 planned shipments are so radioactive that shipping containers must be shielded to protect drivers and the public from excess gamma exposure. 50 truckloads will carry the most highly radioactive material on earth, irradiated nuclear fuel, from Pinawa, Douglas Point and Bécancour.

• CNL is putting Canada's federal nuclear sites at the disposal of the global nuclear industry, as testing grounds for Small Modular Nuclear Reactors.

In effect, Canadian nuclear policy is being written by these private multinational corporations as a fait accompli, and Ottawa is complaisant.

"Canada does not yet have a federal policy for the long-term management of non-fuel radioactive wastes," said Jim Carr, then NRCan Minister, in July 2018. We need one. Future generations require our diligence; other countries look to Canada for examples of responsible radioactive waste handling, transport, and long-term management. Government needs to take charge. Such decisions should not be left to corporate contractors.

The era of large nuclear reactors is over. Fewer reactors are operating today than ten years ago. Projects for new nukes have ruined giant companies like Areva and Westinghouse. Nuclear energy's share of global electricity has plummeted from 17 percent in 1997 to 10 percent today. The "Nuclear Renaissance", ballyhooed since 2001, is a flop.

So how to keep the industry afloat? Maybe try manufacturing smaller reactors? But small reactors are more expensive per unit of energy; one has to sell hundreds or thousands to break even. Mass-production may partly overcome bad economics – but this brings its own difficulties: There are over 150 different designs for SMNRs, each utilizing different fuels, different coolants, different moderators. The chance that any one design will corner the market and secure the sales volume needed to turn a profit is almost nil.

In July the Canadian Nuclear Safety Commissions (CNSC) invited public comments on the first of several SMNRs to be built at Chalk River – a high-temperature gas-cooled molten salt reactor with a graphite moderator, and pebble-like enriched fuel, delivering 15 megawatts of heat.

The age of nuclear power is winding down, but the age of nuclear waste is just beginning. Public consultations with First Nations and other Canadians are needed to formulate acceptable policies regarding the characterization, segregation, packaging, labelling, transport and long-term management of radioactive wastes. Meanwhile, CNL's plans and SMNRs should be put on hold, and the consortium's contract should be cancelled.

- 30 -Positions of the Canadian Coalition for Nuclear Responsibility: www.ccnr.org/Hill_Times_ad_2019.pdf www.ccnr.org/Blanked_letter_2019.pdf www.ccnr.org/Trudeau_pack_5_e.pdf

Positions of the Anishinabek Nation and Iroquois Caucus Radioactive Working Group on Radioactive Waste: www.ccnr.org/Five_Principles.pdf www.ccnr.org/COO_resolution_SMNRs_2018.pdf www.ccnr.org/Sudbury_article.pdf www.ccnr.org/AN_SMNR_Senate_Letter_2019.pdf