

Ottawa fails to lead on isotopes

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Jatin Nathwani

In 2007 Canada and the world were thrust into a major medical crisis in a remarkably short period of time. Unbeknownst to most Canadians, our nation was the world's leading supplier of medical isotopes and the source of those isotopes — the [National Research Universal reactor](#) at Chalk River, operated by [Atomic Energy of Canada Ltd.](#) — had been ordered shut down by the [Canadian Nuclear Safety Commission](#).

The nuclear medicine community quickly made politicians aware of the repercussions of this action. With more than 1 million medical procedures using isotopes each year in Canada, they were listened to. In an extraordinary series of events, legislation was introduced in the Commons to overrule the safety commission, witnesses were heard on the floor of the chamber and a bill was passed with all-party support in a single day. The NRU reactor was restarted within a week. A month later, the government fired the head of the safety commission, Linda Keen.

Much has happened since December 2007. If anything, the crisis has only deepened. The NRU reactor functioned reasonably well between December 2007 and May 2009, when it was again shut down automatically by a power outage. A leak of heavy water was subsequently discovered and the reactor has been out of action ever since. Despite many promises by AECL, the restart date has been pushed back again and again.

To make matters much worse, a Dutch reactor that also supplies isotopes was shut down for maintenance in February for six months. These two reactors had supplied two-thirds of the world's medical isotopes.

Last year was especially eventful on the isotope front. In June 2009, Prime Minister Stephen Harper announced that Canada was getting out of the isotopes business altogether, abandoning a 60-year history of global leadership. Then natural resources minister Lisa Raitt was caught on tape saying that the isotope issue was “sexy . . . radioactive leaks . . . cancer.” The minister's musings to an aide aside, she also commissioned an expert panel to look at the isotopes issue; it reported late last year.

Among its recommendations, the expert panel emphasized the need for Canada to:

- Diversify all aspects of the isotope supply chain to prevent the disastrous consequences we've seen.
- Construct a new multi-purpose research reactor that would also produce isotopes.

- Re-examine the decision by AECL two year ago to cancel the replacement program for the NRU.
- Support research and development for non-reactor-based sources of isotopes.
- Promote greater use of isotopes in medical imaging.

The Harper government's response to the panel came at the end of March and in the federal budget. Most significantly, the government chose a path that fails to deliver a reasonable degree of certainty to the supply of isotopes.

The government's decision to ignore the pivotal recommendation concerning a new multi-purpose reactor should be deeply troubling to all Canadians. A brave recommendation that would put us on a sustainable path to a robust supply was pushed aside. The modest financial support in the budget will go instead to the search for alternative isotope sources, an approach that remains unproven. Cleverly disguised as support for innovation in the cyclotron option, the government strategy lacks a coherent long-term vision required to move us away from week-to-week crisis management.

Canada has lurched from crisis to crisis over the past three years. Equipment failures in old reactors are a real problem but equally the absence of a coherent long-term strategy has left its mark. We have also learned that the international community has failed to work together to chart a way forward. But today, despite this painful awareness, we are in a worse place than we were in December 2007. The world's two major isotope-producing reactors — one of them Canadian — are out of action.

This issue is really about ensuring the best health care for Canadians and pursuing cutting-edge research to assist this worthy goal. We're good at the isotopes business, actually very good. The expert panel issued a challenge to the federal government to lead. Leadership requires courage and a coherent view of the future that integrates the demands of the health-care system with the promise of a robust supply of isotopes.

Other countries have made isotopes a key priority, including the Dutch, the Belgians, the South Africans and the Australians. If they can take bold actions, why won't Canada?

Jatin Nathwani is professor and Ontario Research Chair in Public Policy for Sustainable Energy at the University of Waterloo. Donald Wallace is a Toronto-based consultant. They are editors of Canada's Isotope Crisis: What's Next? published by McGill-Queen's University Press and the School of Policy Studies at Queen's University.