

SLOWPOKE-2

Research Reactor

Decommissioning Open House

Wednesday, December 5, 2018

What is the SLOWPOKE-2?

A low-power research reactor located in Saskatoon.

It stands for Safe LOW Power Kritical Experiment (SLOWPOKE).



What is it used for?

The reactor was used as an analytical tool to analyze for uranium and organic halides.

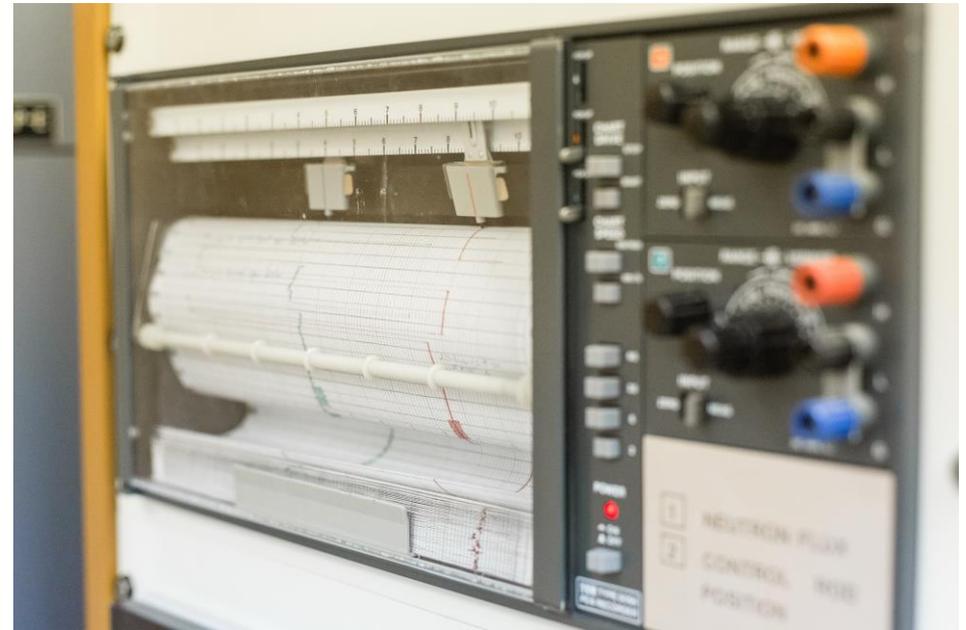
It was used as a neutron source for an analytical technique referred to as neutron activation analysis (NAA) – which is carried out by bombarding the sample with neutrons to produce isotopes of the element that are measured based on their gamma emissions.



Why decommissioning?

SRC evaluated all options and after 37 years of operation, the most business practical and cost-effective solution is to decommission the reactor.

The services the reactor currently provides will be replaced with alternative, just as effective, technologies through SRC Environmental Analytical Laboratories.



Safety

Safety is an over-riding priority for SRC.

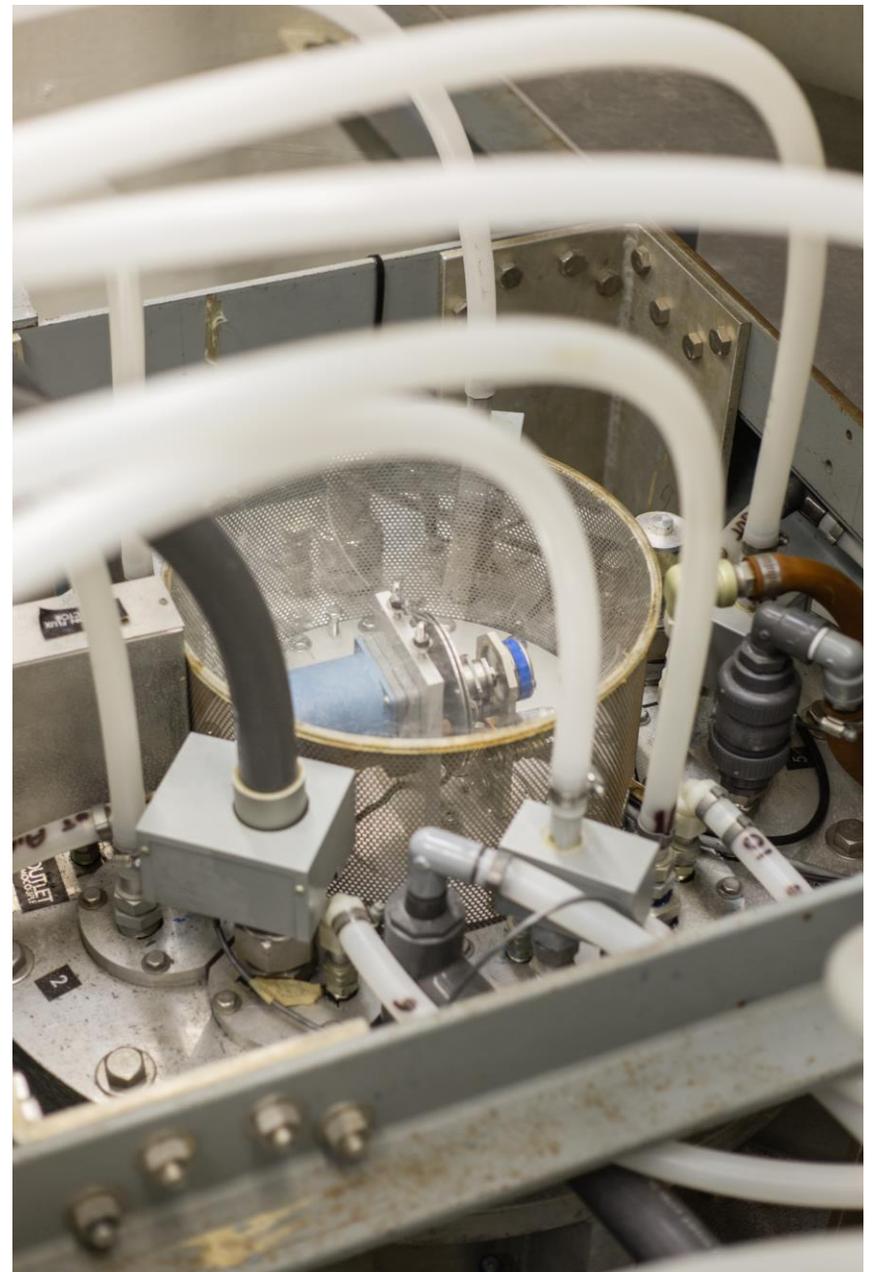
The SLOWPOKE-2 has operated trouble free since its commissioning in 1981.

Its design is fail-safe and does not require an active mechanical safety system.

Heat produced by the reactor limits its reactivity and operation. In addition, there are several safety system shutdowns in place to keep employees and the facility safe.

People who live, work and study in the surrounding community are safe.

No safety or security incidents at the other Canadian SLOWPOKE-2 nuclear reactors that were decommissioned.



Cost

SRC expects the decommissioning to cost approximately \$6.5 million.

The operating license requires SRC to hold funds in trust for decommissioning.

For more than a decade, SRC has been slowly building this trust.



Team



The SRC logo consists of the letters 'SRC' in a bold, blue, sans-serif font. To the right of the letters is a stylized graphic of three curved, overlapping shapes in shades of brown and tan, resembling a fan or a sail.

Owner



SNC • LAVALIN

Contractor



Canada

Regulator

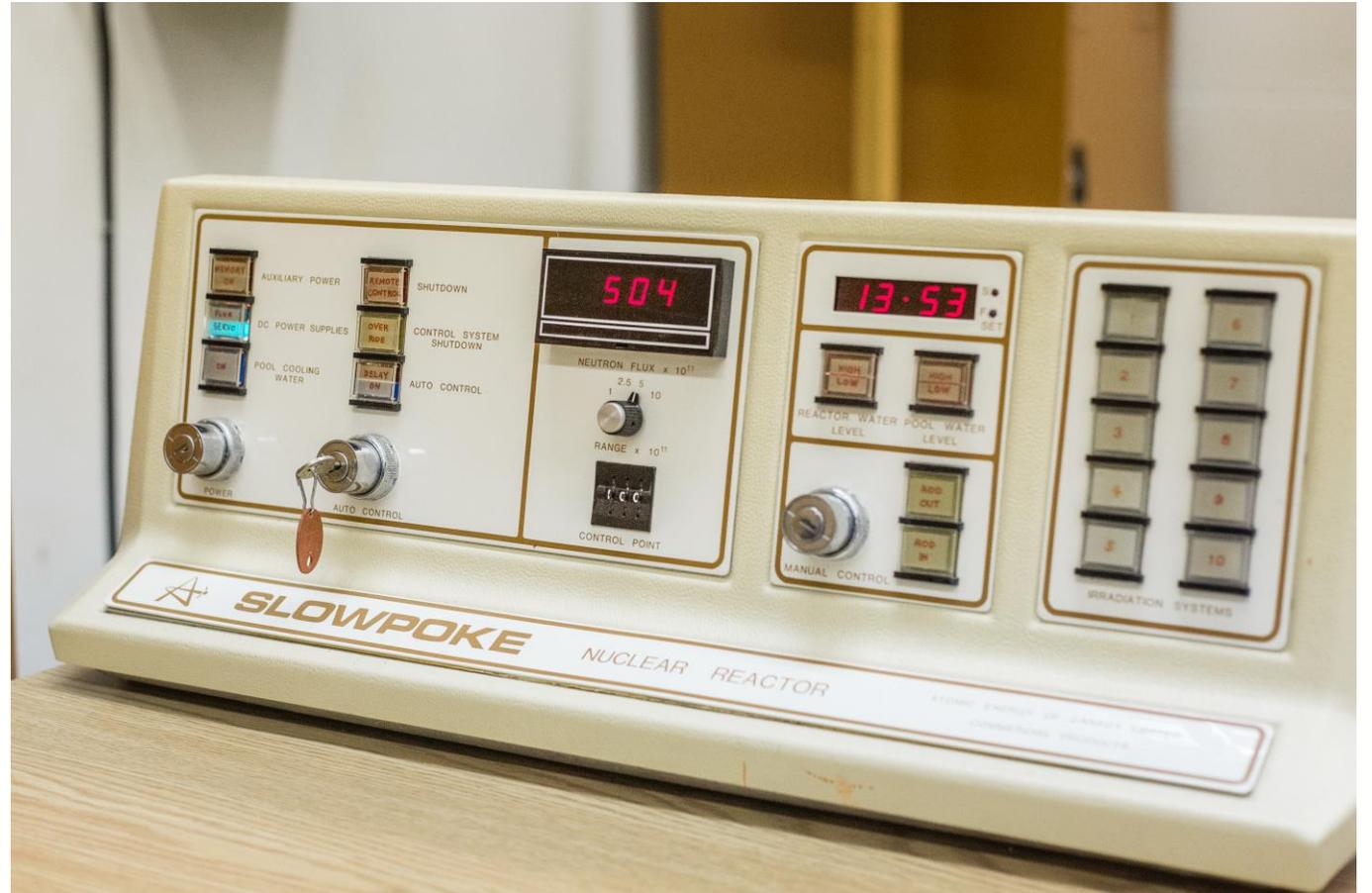
SNC-Lavalin is a Canadian company that has successfully decommissioned two other Canadian reactors and has an excellent relationship with the federal regulator.

Regulation

The decommissioning process is highly regulated and will be conducted under the stringent requirements of the Canadian Nuclear Safety Commission (CNSC).

Three Canadian reactors have already been decommissioned safely (Toronto, Dalhousie, and University of Alberta).

The U of A successfully decommissioned their reactor in 2017-18. It was done safely and without incident under the same regulatory requirements SRC will fall within.



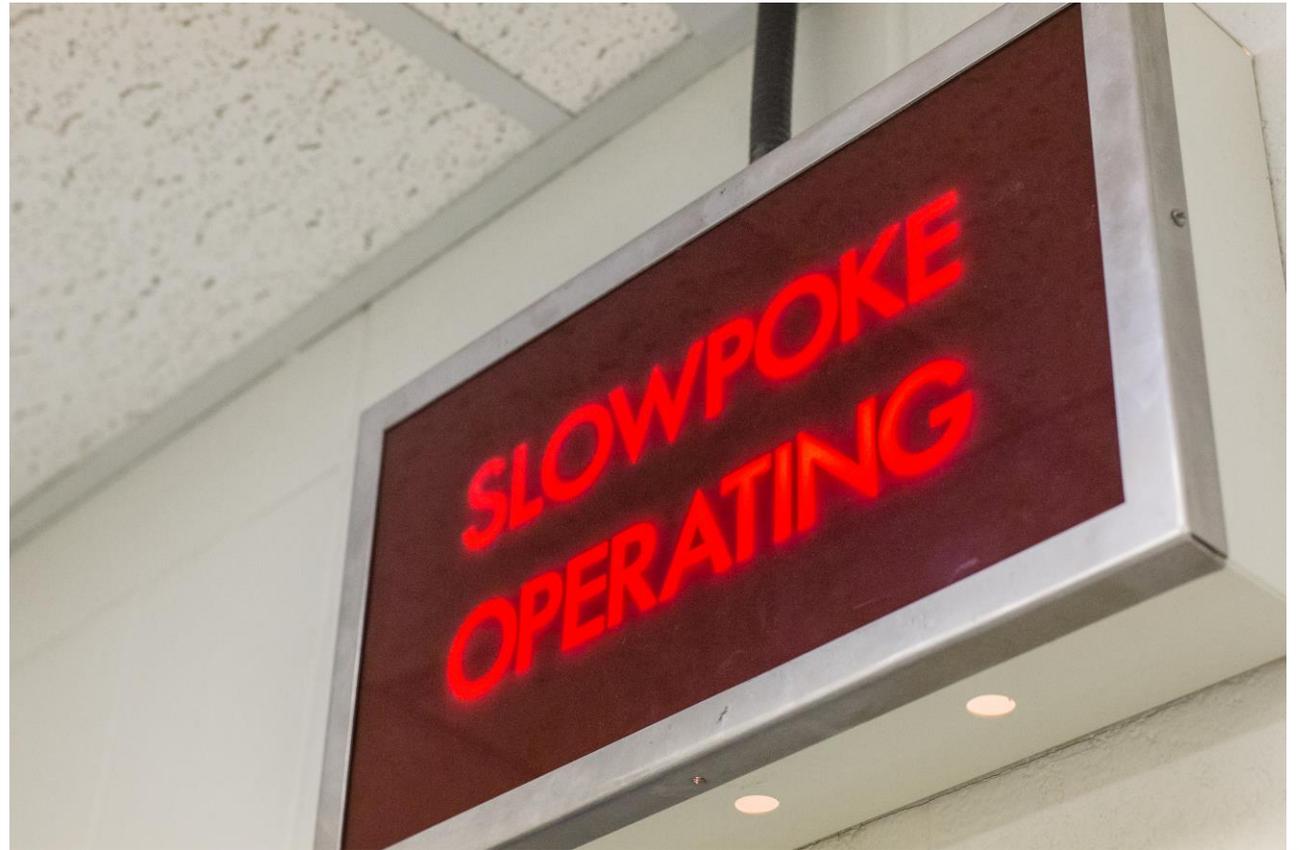
Timeline



SRC and SNC-Lavalin are developing detailed plans in preparation for the decommissioning which will take 2-3 years.

Did you know...

- More than **232,000 tests** have been performed safely.
- The reactor has operated for more than **20,000 hours**.
- SRC's longest-serving operator of the research reactor, has held an operating license for **30 years**.



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Resources

Website: www.src.sk.ca/slowpoke

Blog: www.src.sk.ca/blog/slowpoke-2-research-reactor-valuable-industry-tool

Frequently Asked Questions:
<https://www.src.sk.ca/sites/default/files/resources/slowpoke-2%2520faq.pdf>

Video: <http://src.nu/slowpokevid>