



**Written submission from the
North American Young Generation in
Nuclear (NAYGN)**

**Mémoire de la
North American Young Generation in
Nuclear (NAYGN)**

In the Matter of

À l'égard de

**Saskatchewan Research Council,
SLOWPOKE-2 Reactor**

**Saskatchewan Research Council
Installation nucléaire SLOWPOKE-2**

Request by the Saskatchewan Research
Council to authorize the decommissioning of
the SLOWPOKE-2 reactor

Demande du Saskatchewan Research Council
afin d'autoriser le déclassement du réacteur
SLOWPOKE-2

Commission Public Hearing

Audience publique de la Commission

September 26, 2019

Le 26 septembre 2019

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NAYGN Canada

Written Submission

**SASKATCHEWAN RESEARCH COUNCIL'S SLOWPOKE-2
PUBLIC HEARING
SEPTEMBER 26, 2019**

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NORTH AMERICAN YOUNG GENERATION IN NUCLEAR (NAYGN)

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Matthew Mairinger, for the record.

I would like to start by thanking the Canadian Nuclear Safety Commission (CNSC) for providing an opportunity to speak on the application from the Saskatchewan Research Council (SRC) to amend their Non-Power Reactor Operating Licence for the Safe LOW POWER Kritical Experiment (SLOWPOKE-2) reactor and associated facilities. I have 6 years of experience working for Ontario Power Generation at both the Pickering and Darlington nuclear sites. I have worked in Project Controls, Minor Modifications, Reactor Safety, Performance Engineering, and now I work in Performance Improvement at Pickering as the Senior Advisor in Stakeholder Relations. I earned my Bachelor of Engineering degree in Nuclear Engineering from the University of Ontario Institute of Technology and am a Professional Engineer in the province of Ontario.

I am here representing North America Young Generation in Nuclear (NAYGN) as the NAYGN Canadian Affairs Chair. [NAYGN](#) is an association of young professionals and students passionate about the nuclear industry and is focused on professional development, public relations, networking, and community outreach. There are currently over 120 chapters across North America with 11 chapters in Canada.

I want to commend the safety and environmental numbers for the SLOWPOKE-2 reactor: in over thirty-seven years of operation it has safely performed over 242,000 tests, has been operated for more than 20,000 hours, and surpassed 100,000 flux hours. From the SRC SLOWPOKE-2 Facility License #NPROL-19.00/2023 Annual Compliance Report in 2017 the highest maximum total effective dose received was 0.28 mSv (equivalent to the radiation dose from around 3 transatlantic flights for one person) which was well below regulatory limits. The estimated maximum radiation dose to the public was 0.0000239 mSv which is an equivalent dose to eating less than 1 gram of Brazil nuts. Furthermore over the lifetime of

the reactor the mean total effective dose was below 0.1 mSv/year, demonstrating the overall safety of the facility over the entire lifetime.

The design of the SLOWPOKE reactor is fail-safe and there have been no safety or security incidents at any of the Canadian SLOWPOKE-2 reactors that were decommissioned. The decommissioning contractor, SNC-Lavalin, has already successfully decommissioned two other Canadian research reactors. Furthermore the decommissioning will take place within the regulations and oversight of the CNSC and complies with the IAEA Safeguards Agreements (as per CNSC RD-336).

I want to acknowledge SRC for their remediation activities through project CLEANS, which is a multi-year, multimillion-dollar project to assess and reclaim several mines. This is a great initiative and I am eager to see the environmental benefits this provides for the future. I highly encourage SRC to continue with this project.

In closing, I would encourage other universities and companies to look at the impressive history of the SLOWPOKE and other nuclear research reactors and to consider the services these reactors could provide. I am sad to hear that the SLOWPOKE-2 will be closing but I have confidence that SRC and SNC-Lavalin can successfully decommission this facility. I encourage the CNSC to accept SRC's application to amend their Non-Power Reactor Operating Licence for the Safe LOW POver Kritical Experiment (SLOWPOKE-2) reactor and associated facilities and authorize SRC to decommission the facility.

Thank you.