CANADIAN
NUCLEAR
SOCIETY

www.cns-snc.ca

President's Message

Dear fellow CNS members,

Welcome to the second issue of the 2024 CNS Newsletter and the last issue for the current council year. It is a great accomplishment that we managed to meet our target to publish four newsletters this council year. It is also very encouraging that we have more and more materials to communicate to the members in each publication. It is my hope that this could be a good precursor to bringing back the Bulletin. As in the previous newsletter, I would like to use this opportunity to provide you with some updates related to activities around the CNS since March as well as providing you with a sneak peek of what you should expect to see in this edition of the CNS Newsletter.

Since the last issue of the newsletter, the CNS council held the 216th and 217th council meetings on March 22nd, 2024, and May 3rd, 2024. In the morning of our last council meeting which was an in-person meeting at the COG Office, we held a few workshops which covered important aspects to support our organization on the following topics: strategic planning/business support, an update on business planning/governance, communication, and membership. Guy Hotte has prepared a nice summary of these workshops in this edition of the newsletter.

We are getting closer to the 2024 Annual Conference in Saskatoon, and it will be a fantastic event to attend. We have received unprecedented support from the industry in terms of sponsorship from regional, national, and even international organizations. This is a great indicator of how the nuclear industry is growing and flourishing in Canada. Please note that other upcoming CNS-organized conferences are also presented herein.

This edition of the newsletter also includes a couple of articles from our regular contributors (a big thank you to Jeremy and Morgan!) as well as other articles related to CNS activities. On a more somber note, we also share sad news about the passing of two prominent figures in Canadian nuclear community, Dr. Charles E. Till and Mr. Wilson Lam.

In closing, I would like to thank Cheryl Tasker-Shaw for her continued support during the preparation of our newsletters. Without her help, we wouldn't be able to fulfill our goal of publishing four newsletters this year. Please consider joining her in this worthy and fun activity. Since this would be the last newsletter of my current presidency, I would like to also take this opportunity to thank everyone who has contributed to the newsletter this year as well as those who provided their support and positive criticisms throughout my tenure.

Sincerely,

Doddy Kastanya, PhD, P.Eng.
President of the Canadian Nuclear Society, 2023/2024

Recent and Upcoming Events

43RD ANNUAL CNS CONFERENCE | 48TH ANNUAL CNS/CNA STUDENT CONFERENCE | SASKATOON, SK
THE NEW NUCLEAR
Pathways to securing a clean energy future
JUNE 16TH - 19TH 2024
CNS • 2024 • SNC

43rd Annual CNS Conference and 48th Annual CNS/CAN Student Conference

Thank you for your interest in the 2024 CNS Annual Conference. Due to high demand, we are pausing registration to the public. However, if you fall into one of the categories below and still need to register, please email the Conference Coordinator, Rebecca Colantonio.

- Registrant for your company's sponsorship level (exhibitor and or complimentary)
- Speaker, Chair, Co-Chair or Moderator for the Plenary Program
- Author in the Technical Program
- Honours and Awards Recipient, as well as their guests
- Student Author in the Student Conference

If space permits, we will re-open registrations, please stay tuned.

The conference is now only weeks away, starting on Monday June 16th the three-day conference will be packed with author presentations on

- SMR's, Safety, New Technology and R&D, Operations, Fuel, Waste Management and Environmental Protection, as well as two University Themed sessions.

We have a wide range of plenary speakers who will touch on topics from

- Utility Updates,
- Prairie Potential to Powerhouse; Saskatchewan's Nuclear Renaissance and Talent Development Pipeline,
- Nuclear Sector Development and Updates,
- Engagement on the Introduction of New Nuclear Activities and
- Nuclear Beyond Electricity

Weather Forecast:

- We can expect the weather to be between 20 degrees C to 22 degrees C with sunny skies. The nights can be expected to drop a few degrees making it a very comfortable time of year to be in Saskatoon.

Distance to the hotels from the airport

- To the Sheraton Cavalier Hotel, the travel time is a 17-minute car ride
- To the Delta Hotel Downtown, the travel time is an 18-minute car ride

Tours and Activities we have planned for you! - link to our website

**June 16th
Wanuskewin Tour and Walk**

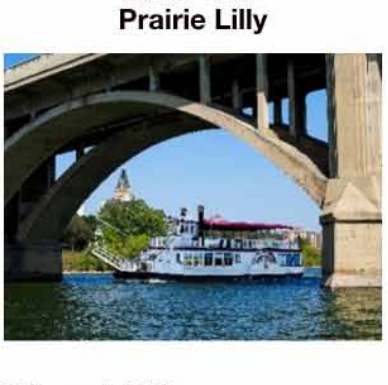
**June 17th
Black Fox Distillery**

**June 17th
Pedal Pub**

**June 19th
SRC OR Fedoruk Tour**

**June 19th
SRC AND Fedoruk Tour**

**June 19th
Prairie Lilly**



**June 17th, 18th, and 19th
Yoga in the Park**

Registration for the tours will be opening very soon, if you are a completed registrant you will receive an email with the link and steps to secure your spot in these activities! They are first come first served.

For General Inquiries, please contact the Conference Coordinator Rebecca Colantonio at rebecca.colantonio@quantumevents.ca
For more information, please visit the website: CNS Annual Conference 2024 (cns-anncon24.ca)

June 16th – 19th, 2024
Saskatoon, Saskatchewan
Sheraton Cavalier Hotel
www.cns-anncon24.ca

DIET 2024
Fifth Annual Conference on
Disruptive, Innovative, and Emerging Technologies
in the Nuclear Industry
November 27th-29th. Toronto, Ontario

The date is set, the venue is booked, it's time to build the future.

Join us, November 27 to 29 at the Courtyard Marriott in Toronto for DIET2024, the fifth annual conference on Disruptive, Innovative, Emerging Technologies in the nuclear sector.

This year's theme, Building Futures, captures DIET2024's spirit of positive momentum - building advanced nuclear technologies, building an inclusive skilled workforce, building an agile regulatory regime.

This year's event is a hybrid of in-person and virtual sessions, with details around plenary and speakers to come.

If you want to help build a cleaner, safer, fairer future, we'll see you in Toronto.

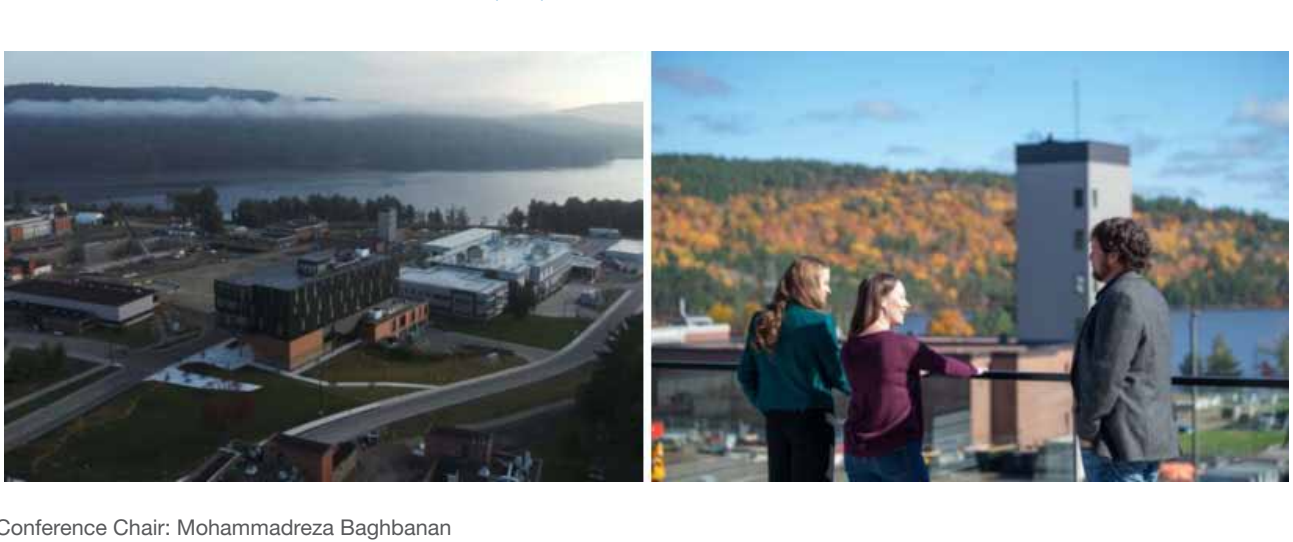
MCFD 2024
MATERIALS, CHEMISTRY & FITNESS FOR SERVICE DIVISION
ONTARIO POWER GENERATION
September 23rd - 26th 2024, Canadian Nuclear Laboratories
Chalk River, Ontario | CNS-MCFD.CA

Addressing end of commercial operation challenges and emerging issues often require innovative and multidisciplinary solutions that involve elements of engineering from: materials, chemistry, stress analysis, thermal-hydraulic analysis, probabilistic assessment methods, examination and inspection approaches, and operational strategies. This is the case for most major nuclear plant systems and components, regardless of reactor type. The focus for the MCFD-2024 Conference is on the challenges, innovations, and experiences encountered when addressing issues of chemistry, materials, or fitness-for-service in nuclear power plants.
The 3rd International Conference of MATERIALS, CHEMISTRY AND FITNESS-FOR-SERVICE SOLUTIONS for Nuclear Systems (MCFD 2024) will be of interest to representatives from various sectors of the nuclear industry including: material and equipment vendors, technical and engineering service providers, utility technical staff, regulators, designers, researchers, students, and academia.

Conference Technical Topics:

- OPEX and lessons learned from recent plant activities
- Case studies
- FFS programs, plans, and achievements
- Materials factors in issue resolution
- Chemistry factors in issue resolution
- Regulatory perspectives
- Application of codes and standards
- Developments in probabilistic assessments
- Analytical tools
- Novel or innovative solutions
- Meeting the challenges of emerging issues
- Major Component Replacement
- New Plant Construction

Conference Venue: Canadian Nuclear Laboratories (CNL), Chalk River, Ontario



Conference Chair: Mohammadreza Baghbanan

Register Today for NUTHOS-14!
NUTHOS-14
THE 14TH INTERNATIONAL TOPICAL MEETING
AUGUST 25-28, 2024 | VANCOUVER, CANADA

The Canadian Nuclear Society (CNS) is thrilled to announce that registration for NUTHOS-14 is open. Join us at the forefront of nuclear innovation at the 14th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics, Operation, and Safety, as the highly anticipated in-person event returns after 5 years!
With an anticipated 300+ attendees of global nuclear industry professionals, from both senior management and technical fields, and private and public sectors, NUTHOS-14 will be a dynamic platform of innovation and leadership in the nuclear sector.

NUTHOS -14 - Canadian Nuclear Society - CNS (cns-snc.ca)

Core Business Blog

by Neil Alexander

How You Can Help

Not much more than 2 years ago the future of new nuclear in Canada was uncertain and as an industry we were about as popular as taxes. If we tried to teach people the facts about nuclear power, at best no one would listen, and most likely we would get drowned out by ardent anti-nukes. No one was listening.

Today the same media portray nuclear as the white knight that will solve all our climate change problems, a solution that, by all accounts, is better than sliced bread. And people are listening to us.

After decades of having to defend our technology, we are used to keeping quiet when things are going our way and where it comes to teaching people about nuclear power, that is exactly what we are doing.

But the fact is that the public knew diddley squat about nuclear when they were against us (we know this because they kept misunderstanding what we were doing) and they still know diddley squat about nuclear now they support us (we know this because nothing has been done to change their level of knowledge). What we should really learn from this is just how frail public opinion is and that should make us understand how quickly it could change again.

Our newfound popularity is a great opportunity to teach people about our technology and reverse some of the misunderstandings that have caused problems in the past.

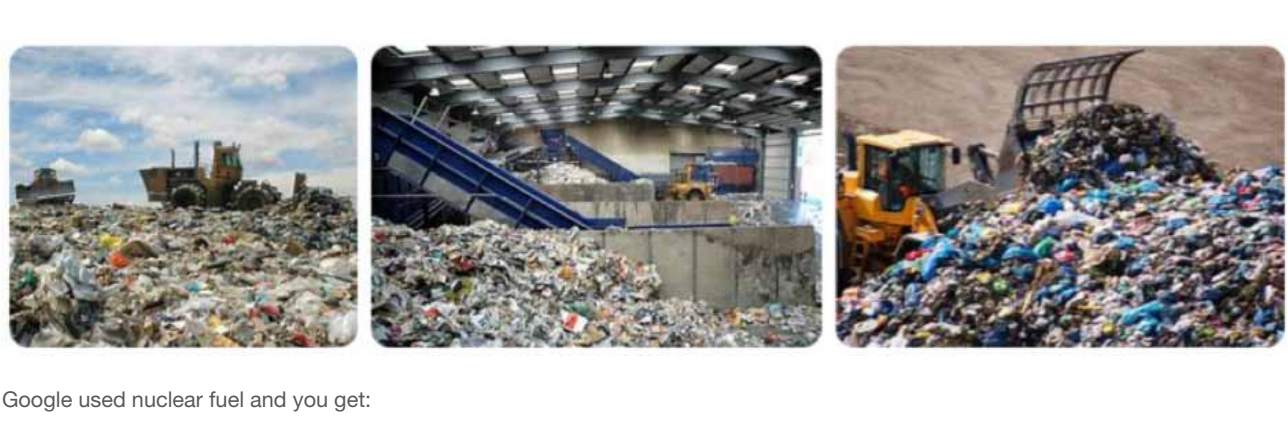
The CNS continues to try and keep you informed so that you can actively engage with your communities and to give you ideas of things you can do.

One theme you will have noticed is a focus on language. The nuclear industry has suffered badly from being described with words that create unfortunate and incorrect images and we would like you to help us get that changed. Imagine if we could grab this opportunity to redirect the dialogue permanently.

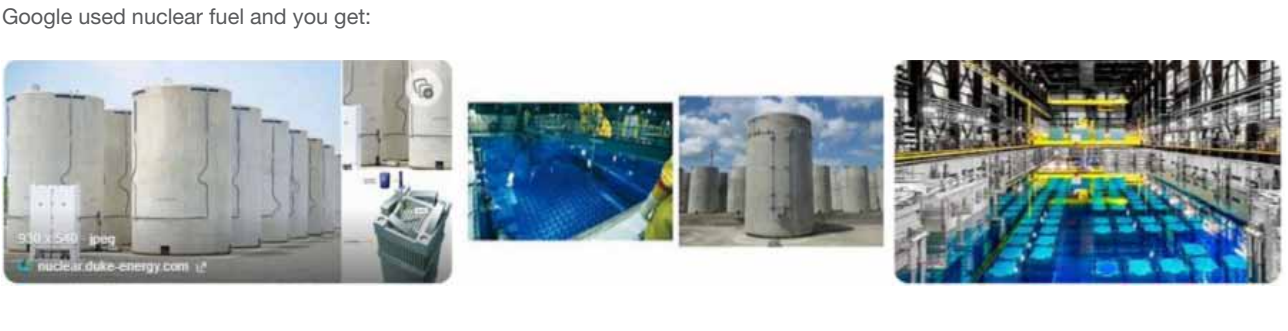
For example, no one would ever want to live next to a dump. People know what a dump is like. This is why anti-nukes like to refer to a Deep Geologic Repository as a "dump". But a DGR is not a dump in any normal use of the word (I once had an anti-nuke try and argue that they could call it a dump because one meaning of the word is a military store, but you could see even they thought that argument was pathetic).

So how about we all correct anyone that uses the word dump when they are referring to a DGR. Even if we don't get them to change then we will have had the opportunity to talk about what a DGR is and how it is different to a "dump".

Similarly, while used fuel is a waste product, the image created by the word waste is incorrect. Google images of waste and you get:



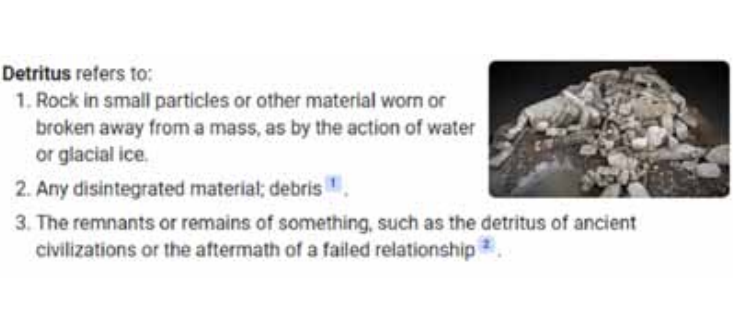
Google used nuclear fuel and you get:



They are not the same.

So, when we hear someone call used fuel waste, let us remind them that it would be better to say used fuel. In doing so we can then legitimately state that we know where all our used fuel is rather than repeat the rather dubious claim some industry players are making that we know where all out waste is.

Recently we even had a journalist describe used fuel as "detritus" in what I believe was a deliberate attempt to create an unpleasant image. I corrected them and they actually tried to defend their position even when detritus is a very specific form of waste that definitely does not include used fuel.



Detritus refers to:

1. Rock in small particles or other material worn or broken away from a mass, as by the action of water or glacial ice.
2. Any disintegrated material; debris [1].
3. The remnants or remains of something, such as the detritus of ancient civilizations or the aftermath of a failed relationship [2].

Other things we can point out are that:

Plutonium is not the most toxic material on the planet as routinely claimed by many anti nukes. Strictly speaking it is not even a toxin buts as poisons go it is not even in the top division which is almost entirely made up of entirely organic toxins. It is in fact about as poisonous as caffeine and 30,000 times less poisonous than the toxin produced by the clostridium botulinum bacteria, that we inject into people to make them feel that they look younger.

Neither radioactive wastes nor used fuel need to be kept out of the environment for millions of years, this is just a misunderstanding arising from the fact that we are required to demonstrate that a repository will still be causing no noticeable harm in a million years' time. Used fuel is largely uranium and is already plentiful in our environment!

I am sure there are more and would love to hear from you about the ones you correct.

We may not completely change the dialogue but while people are listening we might and it takes almost no effort to try.

Dispatch from the Danube

The buzz around Canada

Jeremy Whitlock
May 8, 2024

Canada comes up a lot in nuclear conversations – always has.

Half a century ago the curiosity focused on why Canada was a nuclear powerhouse in the first place: a country known more for snow than science – somehow building its own reactors, supplying the world with nuclear medicine and cancer radiotherapy machines, and earning Nobel prizes.

What wasn't surprising was the country's domination of the uranium market: everyone knew the place was awash in natural resources under all that snow.

Later the chatter wasn't so much around Canada building its own reactors, but being the ONLY country building its own commercial reactor design, other than the U.S. – and with a 100% domestic supply chain.

Not only 100% domestic, but esoteric: natural uranium, pressure tubes, tiny fuel bundles, calandria vessels, heavy water production and upgrading, robotic fuelling machines, tritium handling, dry storage facilities long before the rest of the nuclear world saw the need for them.

The potential for these reactors to run on other countries' waste became fashionable: surplus weapons plutonium from the U.S. and Russia, spent reactor fuel from pretty well anywhere. Thorium was widely discussed – including the possibility to breed from it without using a fast reactor.

Heck this crazy machine could run on anything but the kitchen sink (and even the kitchen sink if it had a uranium or thorium glaze!) Talk ebbed and flowed. Today Canada comes up around the water cooler quite a bit in the context of Small Modular Reactors, or SMRs.

The country still has its domestic CANDU design, and still needs more of those for its industrial and populations centres.

But it also has a growing hunger for smaller reactors in smaller grids, and tiny reactors where there are no grids.

"Microreactors" are the buzz today: the one truly revolutionary deployment model in a sea of exciting possibilities. Microreactors are essentially nuclear batteries – solid state, portable, swap out when done. Their end uses mirror diesel generators and process boilers today – but running for decades without refuelling.

That's important for Canada's north, and other remote locations where energy resources are shipped in at great expense. For this reason there is no economy of scale (the reason why big reactors usually make more sense); there is only economy of opportunity.

Canada knew this half a century ago when it pioneered microreactor development: the SLOWPOKE heating reactor, and the AECL Nuclear Battery (based on the world's safest fuel – TRISO, with heat pipes that require no moving parts for reactor cooling). That buzz eventually slipped away, but it's making a comeback in spades.

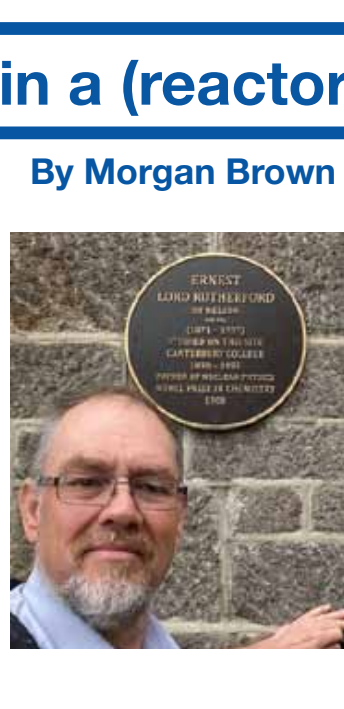
Today Canada is number one on the list of countries with interesting, numerous, and diverse reasons to deploy SMRs and microreactors – fully under international safeguards, and supported by the same robust R&D, manufacturing and regulatory capability that made the country such a curiously unique nuclear leader for 80 years.

With the number of technology suppliers today, and global opinion shifting in favour, the sense is very much that nuclear has come of age.

It's great to be in the conversation.

What's in a (reactor) name?

By Morgan Brown



It began with a label on one of the Society for the Preservation of Canada's Nuclear Heritage (SPCNH) artifacts. A Gurkha kukri knife had been presented to Al Herriot of the Chalk River Nuclear Laboratories (CRNL) by his Indian students, who were studying the National Research eXperimental (NRX) reactor in preparation for operating their own reactor. The artifact label said the reactor was the "Canada-India Reactor Utility Services (CIRUS)" near Mumbai, designed and built by Atomic Energy of Canada Limited (AECL), and first critical on July 10 1960.

That can't be right - didn't CIRUS mean "Canada-India Reactor United States"? The research reactor was essentially a copy of AECL's NRX, initially named CIR, but "US" was later added because of the American contribution. I pointed out the questionable label to the tireless Jim Ungrin, our artifacts chief; he had found the CIRUS acronym explanation on Wikipedia, a reasonably reliable source, which described how a later desalination unit used the reactor waste heat (hence "Utility Services").

Further searching revealed that Dr. Homi Jehangir Bhabha, first chairman of India's Atomic Energy Commission (AEC), had named the reactor CIRUS in honour of Cyrus the Great, the Zoroastrian founder of the Achaemenid dynasty in Persia (Iran) in the 6th century B.C. This claim was reiterated by Dr. Homi Sethna, a later chairman of the AEC and also the CIRUS project manager. Cyrus was a wise and generous ruler - the Bible (Books of Ezra and Isaiah) tells of Cyrus' liberation of the Jews from the Babylonian captivity, and their subsequent resettlement and reconstruction of Jerusalem, earning him an honoured place in Judaism.

The February 1967 edition of AECL Review stated that the Trombay Nuclear Centre was renamed the Bhabha Atomic Research Centre (BARC), in honour of the late Dr. Bhabha. The article also confirmed that CIR had been renamed CIRUS by Dr. Bhabha, phonetically perpetuating the name of Cyrus the Great. My friend and fellow director Sourena Golesorkhi, originally from Iran, was surprised the reactor was named after a Persian king. On further investigation, we learned that Bhabha and Sethna were both Parsis – members of a small Zoroastrian community, descendants of Persians who had migrated to India with the advent of Islam. Perhaps CIRUS was indeed named after Cyrus.

So why had I thought the "US" referred to our southern neighbour? CIRUS was built under the Colombo Plan, an intergovernmental organization that began in 1951 for developing human resources in southern and southeastern Asia. It seems peculiar that the American support of CIRUS was not credited in the acronym – after all, the United States supplied the heavy water, because Canada produced none at the time.

The dark side of CIRUS must now be told. Despite Canadian and US stipulations that the reactor was only for peaceful purposes, CIRUS predated the United Nations "Treaty on the Non-Proliferation of Nuclear Weapons (NPT)", adopted in 1968. Canada was an early NPT signatory but, sadly, India refused to do so. On May 18 1974, India exploded its first nuclear weapon under Homi Sethna's supervision, ostensibly for peaceful purposes, in the cynically-named "Operation Smiling Buddha". The detonation shocked the world, in particular Canada and AECL, upon which blame fell since the plutonium undoubtedly originated from irradiated CIRUS fuel. Canada, after unsuccessfully trying to establish a nuclear non-proliferation agreement, cut off any further nuclear cooperation with India in May 1976; this lasted until 2015, when a new Nuclear Cooperation Agreement came into effect.

A 2005 article from the Nuclear Control Institute, "CIRUS Reactor's Role in a U.S.-India Nuclear Agreement", offers an interesting perspective on the lack of "United States" in the CIRUS acronym. Author Paul Leventhal claims the US supply of heavy water for CIRUS was kept quiet by the US government: "[In May 1974] a Congressional liaison officer of the U.S. Atomic Energy Commission called to inform me that India had just conducted a nuclear test and to assure me that 'the United States had absolutely nothing to do with it. … This is a Canadian problem, not ours'. It took me two years to discover that the information provided me that day was false. The United States, in fact, had supplied the essential heavy-water component that made the CIRUS reactor operable, but decided to cover up the American supplier role and let Canada 'take the fall' for the Indian test. Canada promptly cut off nuclear exports to India, but the United States did not."

So, what's in the name CIRUS? Was it simply an extension to the original "Canada-India Reactor" to honour King Cyrus the Great, or was it Homi Bhabha's acknowledgement of US involvement? We may never know for sure. What I do know is that my self-proclaimed knowledge of Canadian nuclear history is not so firm.

One more thing, for those who believe in conspiracies; Bhabha died when Air India Flight 101 crashed near Mont Blanc in the Alps on 24 January 1966. The late CIA operative Robert Crowley, once second in command of the CIA's Directorate of Operations, implied the CIA was responsible for assassinating Bhabha. But that's another story we may never know.

A PRIORITY INITIATIVE: THE 'CNS ORGANIZATIONAL EFFECTIVENESS' PROJECT

Jacques Plourde, Strategic Planning & Keith Stratton, Business Support

The Strategic Planning and Business Support Committees joined forces to address our Business Plan's Priority Objective #1 which focused on the possibility of hiring an Executive Director and considered organizational changes that would improve sustainability and competitiveness.

After much deliberation, the project morphed into a more wholistic approach better suited to the complex interactions between the many functions within the CNS organization.

The flowchart on the next page summarizes this project. It is divided into 3 main segments identified by their colours as follows:

1. The established Strategic and Business Planning processes.

- The 2023-2024 campaign delivered a number of Priority Initiatives, including Initiative #1 focused on the Executive Director role and possible CNS reorganization.

2. The work completed or in progress to date with the Joint Strategic Planning and Business Support Committees to address Initiative #1:

- The team recognized that to propose the right solution, it needed first to understand the problem(s) it needed to solve. While 'modernizing' the gap analysis results of a few years ago, 12 key gaps were identified. These are not listed on the flowchart in any particular order and are thus all considered equally important.
- Since many of the gaps overlap, and acknowledging that the CNS does not have the capacity to address all of them simultaneously, four 'core' gaps were chosen as our focus areas for this project:
    1. Membership (Guy Hotte)
    2. Branches (Arthur Situm)
    3. Events (Keith Stratton)
    4. Stakeholder Relations (Jacques Plourde)

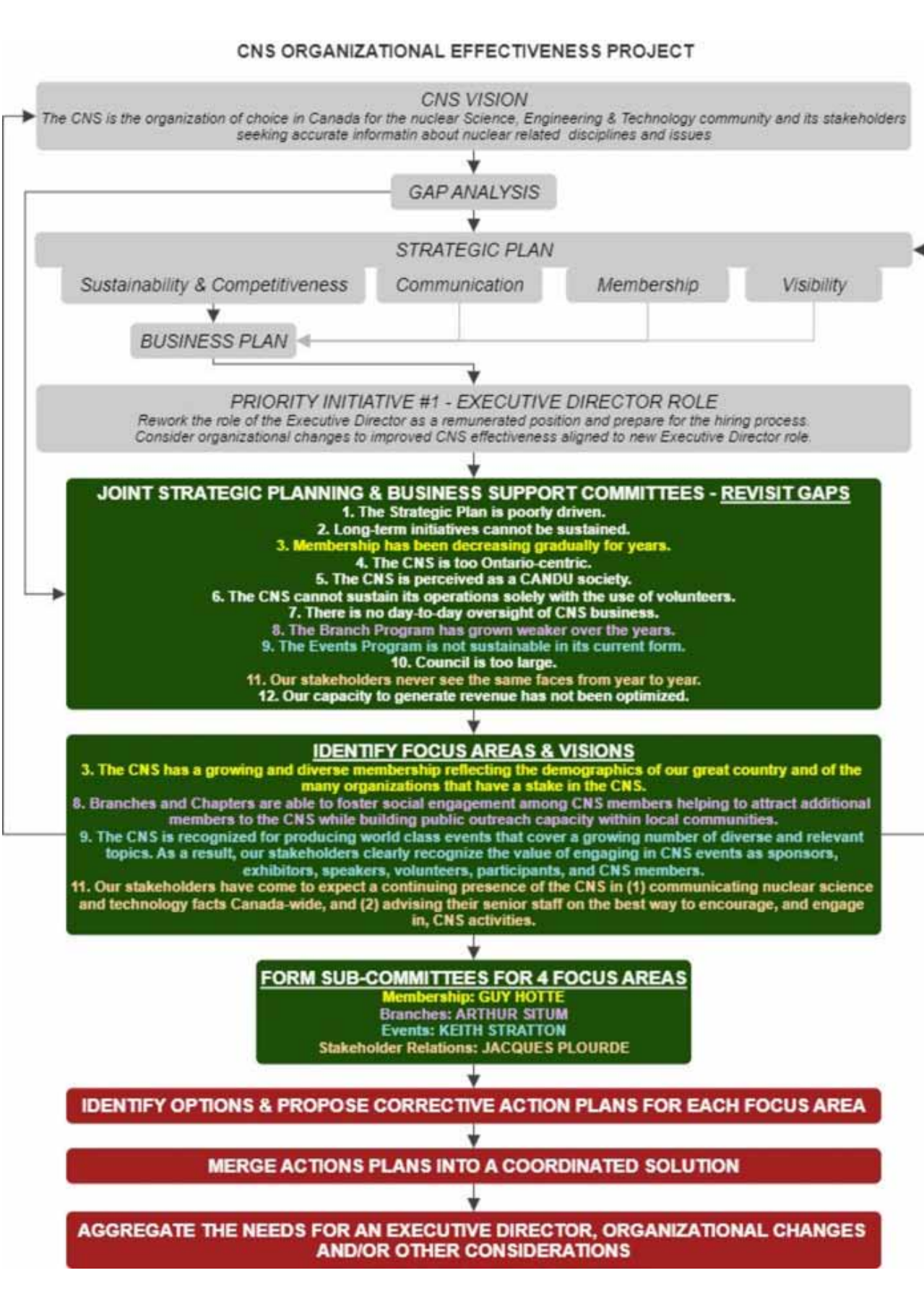
The flowchart provides a vision statement for each focus area.

- Each focus area will be addressed by a dedicated sub-committee, with the Chairs identified above. The Chairs are actively recruiting sub-committee members. If you are interested in helping with one of these focus areas, please do not hesitate to contact its Chair.

3. The work to be completed in the next few months:

- Each sub-committee will propose actions that will best address its respective gaps.
- The four sub-committees will coordinate their findings into a master plan.
- As the work above proceeds, an aggregate list of tasks beyond the capacity of CNS volunteers or the current CNS organizational structure will be constructed. This list will form the basis for defining the role and responsibilities of an Executive Director and/or others, identifying organizational structure changes, and providing insights into other improvements the CNS could consider.

Regular progress updates will be provided as the project proceeds in order to prepare Council for the formal submission of a proposal in 2024-2025. Many changes likely to be proposed will have an impact on our Society Bylaws, requiring ratification of CNS members at an Annual General Meeting or a Special Members Meeting.


CNS ORGANIZATIONAL EFFECTIVENESS PROJECT
CNS VISION
The CNS is the organization of choice in Canada for the nuclear Science, Engineering & Technology community and its stakeholders seeking accurate informatin about nuclear related disciplines and issues
GAP ANALYSIS
STRATEGIC PLAN
Sustainability & Competitiveness
Communication
Membership
Visibility
BUSINESS PLAN
PRIORITY INITIATIVE #1 - EXECUTIVE DIRECTOR ROLE
Rework the role of the Executive Director as a remunerated position and prepare for the hiring process.
Consider organizational changes to improved CNS effectiveness aligned to new Executive Director role.
JOINT STRATEGIC PLANNING & BUSINESS SUPPORT COMMITTEES - REVISIT GAPS
1. The Strategic Plan is poorly driven.
2. Long-term initiatives cannot be sustained.
3. Membership has been decreasing gradually for years.
4. The CNS is too Ontario-centric.
5. The CNS is perceived as a CANDU society.
6. The CNS cannot sustain its operations solely with the use of volunteers.
7. There is no day-to-day oversight of CNS business.
8. The Branch Program has grown weaker over the years.
9. The Events Program is not sustainable in its current form.
10. Council is too large.
11. Our stakeholders never see the same faces from year to year.
12. Our capacity to generate revenue has not been optimized.
IDENTIFY FOCUS AREAS & VISIONS
3. The CNS has a growing and diverse membership reflecting the demographics of our great country and of the many organizations that have a stake in the CNS.
8. Branches and Chapters are able to foster social engagement among CNS members helping to attract additional members to the CNS while building public outreach capacity within local communities.
9. The CNS is recognized for producing world class events that cover a growing number of diverse and relevant topics. As a result, our stakeholders clearly recognize the value of engaging in CNS events as sponsors, exhibitors, speakers, volunteers, participants, and CNS members.
11. Our stakeholders have come to expect a continuing presence of the CNS in (1) communicating nuclear science and technology facts Canada-wide, and (2) advising their senior staff on the best way to encourage, and engage in, CNS activities.
FORM SUB-COMMITTEES FOR 4 FOCUS AREAS
Membership: GUY HOTTE
Branches: ARTHUR SITUM
Events: KEITH STRATTON
Stakeholder Relations: JACQUES PLOURDE
IDENTIFY OPTIONS & PROPOSE CORRECTIVE ACTION PLANS FOR EACH FOCUS AREA
MERGE ACTIONS PLANS INTO A COORDINATED SOLUTION
AGGREGATE THE NEEDS FOR AN EXECUTIVE DIRECTOR, ORGANIZATIONAL CHANGES AND/OR OTHER CONSIDERATIONS

Update from the CNS Scholarship Committee

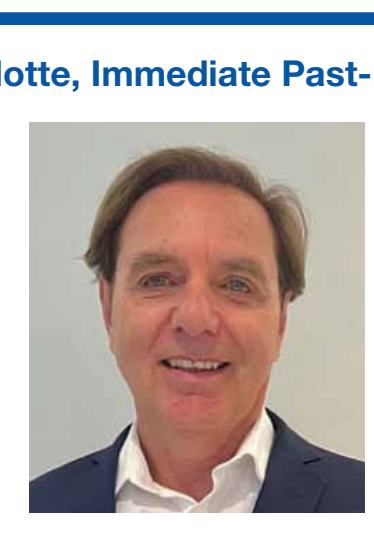
The CNS actively encourages young people to consider a career in Nuclear Science and Technology (NS&T). One of the ways it does that is by awarding scholarships to selected undergraduate students at Canadian universities. This process is administrated by the Scholarships Committee, which publicizes the scholarships through the website, email, and by other means, collects the applications, reviews them, and selects the awardees.

There are two types of scholarships, one for in-course students who take up a summer internship in a field of NS&T and one for graduating students who enroll in a graduate program in NS&T. These scholarships are competitive, with fixed deadlines for submission. The committee also awards small travel grants to students (undergraduate as well as graduate) who attend an event related to NS&T, if the student can make the case that attending the event is beneficial for their education and/or career development. The travel grants are awarded on an ongoing basis.

In 2024, a graduate entrance scholarship was awarded to Leonard Wang; undergraduate summer research scholarships were awarded to Sean Alviso, Colby Arsenault, Joseph Fishman, Stephan Foster, Vicky Nguyen, Jadyn Yaroshuk, and Qasim Siddiq. The CNS congratulates the winners, wishes them success in their research projects, and hopes to welcome them at a future Annual Conference.

May 3rd In-Person CNS Members Workshop – COG Offices – 8:30 am – 2:00 pm

by Guy Hotte, Immediate Past-President.



First of all, we would like to thank COG for allowing us the use of their conference room and facilities which contributed greatly to the success of these workshops. An impressive number of 30 participants, in person and virtually, actively engaged in discussions on various topics. As you are all aware, the pandemic had interrupted our CNS Council and extended council in-person meetings that used to be held for full day sessions every two months. Also a few years back, Council reformatted the Council meetings to a 2-hour agenda focused more on effective decision making, than strategic discussions. So, the pandemic left us an orphan of in-person contacts, and the council reorganization, an orphan of engaged strategic discussions on the mission and performance of our Society. Recognizing the need, this has led us to set up in the last two years at least one in-person meeting per year. With the new council meeting format, this created an opportunity to introduce workshops, which are open to all CNS members, where Council and Executive could have discussions with CNS members on strategic objectives, activities, mission, and values. Our latest, a few weeks back, was on the following topics:

- Strategic Planning/Business Support workshop
- Update on Business Planning/Governance
- Workshop on Communications
- Membership

Great discussions and engagement from the attendees; we needed all the time that we had planned, and we could have used more. A few takeaways:

Strategic Planning and business support

- Concern voiced that CNS mission statement need to be clarified for the 4 chosen key focus areas: Membership, Branches, Events Program, Stakeholder Relations
- Addressing the gaps in the 4 chosen key focus areas will help to clarify the CNS mission statement and what needs to be done first.

Governance

- There is a need to establish ownership of the governance documents.
- Implementation and roll out/adherence to governance is an issue.
- Communication and access to governance documents is needed.
- Mandatory annual officers' seminar is key to the above points.

Communications

- The speaker model was the original intent for the head of communication role.
- Developing/defining the "CNS message" is key to the spokesperson model and has yet to be realized.
- The focus should also be on communication with members and extended list of interested parties.

Membership

- Need to communicate the first Redstone strategic membership report to members.
- Communication needs to be customized for younger members.
- Courses need to be identified/promoted as benefit/service for Industry training programs. Making courses and conferences accredited for the PEO continuous education program would be a value add for membership.
- Need to consider legal/by-law requirements associated with corporate/group membership options.
- Need to include review of existing partnership agreements.

Moving forward, the Council and Executive identifies the need to increase the number of in-person workshops, increase participation to ensure continuity and agreement on the outcomes. We will set up a site so that all members can consult the workshop documents and encourage involvement.

Obituary

Wilson Kwok Ying Lam

Wilson Lam, a devoted family man, cherished father, and adoring grandfather, has left us with heavy hearts. With profound sadness, we announce his peaceful passing on October 20, 2023, at the age of 70.

He served on the CNS council for many years and contributed to many CNS activities. Most noticeably, in supporting and promoting the Small Modular Reactors in Canada. He was instrumental in starting the G4SR series of conferences which have been very successful. He spearheaded the formation of the CNS Generation IV and Small Reactor Division back in 2017. Wilson was kind, friendly and knowledgeable person in addition to being very passionate and dedicated in all that he did for our organization.

Wilson's love for his family knew no bounds. He took immense pride in his children and grandchildren, finding endless joy in their accomplishments and milestones. His heart overflowed with love, and his unwavering support was a source of strength for his loved ones. He leaves behind his daughters Annie Lam and Diana Lam, son in law Omega Nguyen, grandchildren, Mark Nguyen, Mason Nguyen and Bianca Nguyen.

Wilson is also survived by his wife Tina, His love for his wife was unmatched. Their bond was one of unwavering companionship and honesty. Additionally, Wilson cherished his siblings who he called regularly, ensuring their connection remained strong despite the miles that separated them. He is survived by Thai Vinh Lam, Tuyen My Lam and Ngoc My Lam.

Passionate about music, Wilson was an ardent Bee Gees fan. His soulful voice filled the air as he sang along to their timeless melodies. In his quiet moments, he found solace in the company of his birds and fish, nurturing their well-being with care and tenderness.

Vietnamese coffee was a simple pleasure that brought Wilson great delight. He savored every sip, savoring the rich flavors that reminded him of his homeland. His love for biking took him on countless adventures, where he reveled in the freedom of the open road, embracing the beauty of nature.

Wilson had an eye for the unique and the antique. His collection of knickknacks and treasured antiques reflected his appreciation for beauty and history.

A man of faith, Wilson attended Grace Alliance Church (Hoi Thanh Tin Lanh An Dien) finding solace and strength in his spiritual community. His devotion to his beliefs, providing comfort and grounding.

Wilson Lam leaves behind a legacy of love, humor, and an unwavering commitment to family. His absence will be deeply felt by all who were fortunate enough to know him.

Dr. Charles E. Till

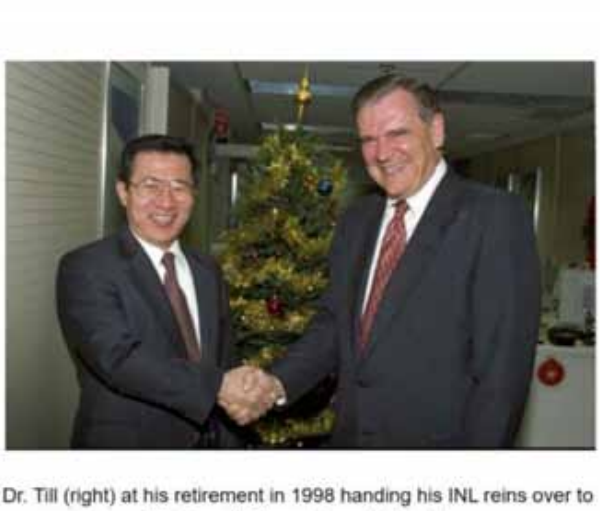
We note with sadness that Dr. Charles E. Till passed away, Friday, March 22, 2024.

Dr. Till born in Saskatchewan, was one of the chief individuals working on putting the Canadian NPD reactor on-line, then went on to the Argonne National Laboratories in Idaho Falls for an illustrious career working on the EBR-2 fast-spectrum reactor. He became Associate Laboratory Director for Engineering Research in charge of ANL fission reactor research, fusion, arms control and non-proliferation, nuclear waste management with a staff of about 1500 engineers, scientists, and support personnel.

While he retired in 1998, he continued with an effective interest in the field, with the publication of a major description of the Argonne EBR-2 reactor/recycling experience detailed in his book "Plentiful Energy: The Story of the Integral Fast Reactor. The complex history of a simple reactor technology, with emphasis on its scientific basis for non-specialist", published with co-author Dr. Yoon Il Chang.

His most important work was the elaboration in the 1980s of the Integrated Fast Reactor (IFR) concept, a reactor that maintained its fissile content and whose used fuel was recycled on-site using locally developed electro-refining in molten salt (pyroprocessing). In 1986, he demonstrated that in a LOCA the sodium-cooled metal-fueled EBR-2 would shut itself down within five minutes without human or automated intervention even with deliberately inactivated control rods. The reactor would be restarted the same day.

Dr. Till (far right), in front of IFR facility acting as a guide in 2013 during a site visit from OPG and CNS personnel.



Dr. Till (right) at his retirement in 1998 handing his INL reins over to Dr. Yoon Il Chang (from his book).

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