

CAC May 18, 2021 – APPENDIX 4

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From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Monday, August 16, 2021 11:49 AM

Subject: Now available: Technical Study Report of the Provincial Nuclear Emergency Response Plan

Interested parties can now request a copy of the Technical Study Report of the Provincial Nuclear Emergency Response Plan for Ontario by contacting AskOFMEM@ontario.ca.

We're sharing this information as a follow-up to the discussion on the report's availability at the June public Commission Hearing on the renewal of Ontario Power Generation's nuclear power reactor site preparation licence for the Darlington New Nuclear Project.

For more information, go

to https://www.emergencymanagementontario.ca/english/emcommunity/response_resources/plans/technical_study_report_pnerp.html

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Thursday, August 12, 2021 8:57 AM

Subject: Commission announces members of the External Advisory Committee on Pressure Tubes

The Commission has announced the three members of its new External Advisory Committee (EAC) on Pressure Tubes. The EAC members are in place for a 2-year term to support Commission members by providing technical and scientific advice on pressure tubes.

The EAC members have been appointed to complement the expertise of Commission members and CNSC staff, and provide an impartial, external perspective to support the Commission members on matters specific to pressure tubes, hydrogen equivalent (Heq) concentration exceedances and modelling for predicting Heq concentrations.

A public Commission meeting will be held on September 3, to discuss the recent discovery of elevated Heq concentrations and the responses by nuclear power plant licensees and CNSC staff on this issue. We encourage you to tune in to the virtual public Commission meeting which will be webcast live.

Read more about the EAC members and terms of reference at <http://nuclearsafety.gc.ca/eng/the-commission/external-advisory-committee-pressure-tubes.cfm>

Visit our website to learn more about the CNSC's work and about pressure tubes: <http://nuclearsafety.gc.ca/eng/resources/fact-sheets/pressure-tubes.cfm>

Read more about the September 3 Commission Meeting at <http://nuclearsafety.gc.ca/eng/the-commission/pdf/NoticeCommissionMeeting-Sept3-2021-e.pdf>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Wednesday, August 11, 2021 12:11 PM

Subject: First international review on proposed SMR technology completed

We have completed our first collaborative activity under the Memorandum of Cooperation (MOC) on Advanced Reactor and Small Modular Reactor Technologies with the U.S. Nuclear Regulatory Commission. The MOC enhances cooperation in areas of common interest, including aspects of: reactor design, research, staff training, and the comparing of regulatory practices.

X-energy submitted a white paper for early feedback from both regulators on the design and construction codes (specifications used by industry to ensure safe construction) they're proposing to use for their reactor pressure vessel. We reviewed it and noted areas where additional technical justification is required. Along with our American counterparts, we agree that X-energy's proposed approach for the design and fabrication of the Xe-100 reactor pressure vessel could be viable, assuming the noted observations and additional technical justification are addressed.

In Canada, the feedback provided by the CNSC is informal and does not result in any regulatory decision making, such as licensing, for which the Commission has sole authority.

To learn more about the MOC, go to <https://www.nuclearsafety.gc.ca/eng/resources/news-room/feature-articles/Sharing-our-expertise-with-the-US-Nuclear-Regulatory-Commission.cfm>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Monday, July 26, 2021 2:44 PM

Subject: Supporting global partners and fusion technology

The International Thermonuclear Experimental Reactor, known as ITER, is the world's largest fusion experiment. Established in 2006, ITER has 7 member entities: China, India, Japan, Russia, the Republic of Korea, the United States and the European Union.

While not a collaborating member, Canada signed an agreement for cooperation in the peaceful uses of fusion energy with the ITER Organization in 2020: <https://www.treaty-accord.gc.ca/text-texte.aspx?lcid=1036&id=105606&t=637587081129001642>.

At the CNSC, this new administrative arrangement with the ITER Organization is designed to support import and export licensing and reporting on tritium, equipment and technology to further the work of the ITER project team in France.

Did you know? Canada signs nuclear cooperation agreements to ensure that nuclear exports are used for peaceful uses only. The CNSC supports these international agreements through administrative arrangements and memoranda of understanding.

Learn more at <https://nuclearsafety.gc.ca/eng/resources/international-cooperation/international-agreements.cfm#France>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Wednesday, July 14, 2021 4:04 PM

Subject: Regulatory Action issued to all nuclear power plants

We were informed by Bruce Power that some pressure tube inspections of its reactor Units 3 and 6 currently shut down are indicating higher measurements of hydrogen equivalent (Heq) than predicted, exceeding the limits set out in the power reactor operating licence conditions.

The reactors with the higher hydrogen content in pressure tubes are shut down for refurbishment and maintenance outages and do not pose a safety concern to the public or environment.

Hydrogen content is not a concern when reactors are shut down or have reached operating temperature.

Since hydrogen content can only be measured while the reactors are shut down, CNSC staff have directed Bruce Power to assess the fitness for service of the other operating reactors and issued formal notices to all nuclear power plant licensees in Canada requesting further analysis on the continued safe operation of pressure tubes.

We have informed the Commission of this preliminary information and the regulatory steps staff is taking, and will provide the Commission with updates as more information becomes available.

Information: <https://nuclearsafety.gc.ca/eng/acts-and-regulations/event-reports-for-major-nuclear-facilities/event-reporting/nuclear-power-plants.cfm>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Tuesday, July 13, 2021 3:18 PM

Subject: Environmental impact statement for proposed Near Surface Disposal Facility

On July 2, 2021, we completed our review of the final Environmental Impact Statement (EIS) from Canadian Nuclear Laboratories (CNL) for the proposed Near Surface Disposal Facility. We

found the information provided in CNL's submission is complete, and the final EIS and supporting documents are now available on Canada's Impact Assessment Registry. Learn more about the final EIS at <https://www.iaac-aeic.gc.ca/050/evaluations/proj/80122?culture=en-CA>

We will now begin preparing an environmental assessment report, which will be published online and shared widely before the Commission holds a public hearing.

For more information about the NSDF, visit <https://nuclearsafety.gc.ca/eng/reactors/research-reactors/nuclear-facilities/chalk-river/near-surface-disposal-facility-project.cfm>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Monday, July 12, 2021 11:10 AM

Subject: Our Independent Environmental Monitoring Program is visiting Pembroke

Each year, environmental specialists go out into the field to monitor the environment around Canadian nuclear facilities. Our experts take samples—such as air, water, soil, sediment, vegetation or local food—from public areas as part of our Independent Environmental Monitoring Program (IEMP).

This week, we're coming to collect samples in various areas around Pembroke at SRB Technologies' nuclear processing facility. If you see us out in the community, you're welcome to ask questions, but please remember to keep your distance during this pandemic. You can also reach us at cnscccsn@nsc-csc.gc.ca or by calling 1-800-668-5284 (toll free).

For more about IEMP, go to <https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Wednesday, June 30, 2021 10:34 AM

Subject: Now available: Independent Environmental Monitoring Program results for Port Hope

The results of our 2020 Independent Environmental Monitoring Program (IEMP) sampling campaign in Port Hope, Ontario, demonstrate that people and the environment are protected. Our sampling also shows that Cameco Corporation is following our strict environmental protection requirements.

In October 2020, we collected air, soil and water samples in public areas outside the Port Hope Conversion Facility and Cameco Fuel Manufacturing perimeters and analyzed them in the CNSC lab. The results were below the guidelines from the Canadian Council of Ministers of the Environment and were similar to (or lower than) sampling data from previous years.

Since the IEMP is independent from the regular, ongoing monitoring nuclear facility operators in Canada are required to do, the data we collect is used to provide added confirmation that licensees are adhering to the required environmental protection standards.

Read the results of the 2020 campaign for the Port Hope Conversion Facility and Cameco Fuel Manufacturing at <https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/port-hope.cfm>.

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Tuesday, May 25, 2021 2:56 PM

Subject: Vendor design review of Moltex Energy's small modular reactor

We completed Phase 1 of the pre-licensing vendor design review (VDR) for Moltex Energy's 300 MWe small modular reactor. Overall, Moltex Energy demonstrated an understanding of our regulatory requirements and expectations. The review also concluded that additional work will be required in areas such as management systems, safety classification, and design aspects of containment structures should Moltex Energy decide to proceed with a Phase 2 review.

For more information, see the executive summary of our review at <https://www.nuclearsafety.gc.ca/eng/reactors/power-plants/pre-licensing-vendor-design-review/index.cfm#R4>

This is our ninth Phase 1 pre-licensing VDR since we began offering this service in 2008. Phase 1 is an overall assessment of the vendor's design against our design requirements and Canadian codes and standards for a nuclear reactor facility (nuclear power plant). The review does not bind or otherwise influence licensing decisions made by the Commission.

Want to know more about small modular reactors? Go to <https://www.nuclearsafety.gc.ca/eng/reactors/research-reactors/other-reactor-facilities/small-modular-reactors.cfm>.

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Tuesday, May 25, 2021 1:19 PM

Subject: Record of decision: Ontario Power Generation's Pickering Nuclear Generating Station

Following a hearing based on written submissions, the Commission accepted Ontario Power Generation's proposal to amend the integrated implementation plan for the Pickering Nuclear Generating Station.

The Commission concluded the revised integrated implementation plan would continue to meet the safety improvement objectives of the periodic safety review. The Commission was satisfied

the specific changes requested would not take away from those objectives and would remain within the safety case approved when it renewed the licence.

Read the decision at https://www.nuclearsafety.gc.ca/eng/the-commission/hearings/documents_browse/results.cfm?dt=13-Apr-2021&yr=2021

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Wednesday, May 19, 2021 12:42 PM

Subject: Technical review begins for Global First Power proposed SMR project

In March and April 2021, Global First Power (GFP) submitted management system documentation in support of its application for a licence to prepare a site for a small modular reactor on Atomic Energy of Canada Limited property at the Chalk River Laboratories site.

On May 6, 2021, the CNSC determined this documentation and GFP's plan for additional submissions were sufficient to begin the technical review as part of the licensing application process.

To learn more about GFP, visit <http://www.nuclearsafety.gc.ca/eng/reactors/research-reactors/nuclear-facilities/chalk-river/global-first-micro-modular-reactor-project.cfm>

From: CNSC.Info.CCSN@canada.ca <CNSC.Info.CCSN@canada.ca>

Sent: Thursday, May 6, 2021 11:51 AM

Subject: PUBLISHED: Seventh Canadian National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

The National Report for the Joint Convention is now available on our website.

The Joint Convention is an international agreement that governs all aspects of spent fuel and radioactive waste management. The National Report confirms Canada's commitment, through government, industry and CNSC cooperation, to achieving and maintaining consistently high levels of safety in the management of spent fuel and radioactive waste to ensure the continued protection of the health and safety of people and the environment.

The results of this report show Canada continues to meet its obligations under the terms of the Joint Convention.

Sections of interest include:

- Section D, on inventories and lists related to spent fuel and radioactive waste in Canada: <http://nuclearsafety.gc.ca/eng/resources/publications/reports/jointconvention/seventh->

[report/seventh-report-joint-convention.cfm#secD](http://nuclearsafety.gc.ca/eng/resources/publications/reports/jointconvention/seventh-report/seventh-report-joint-convention.cfm#secD)

- Section K.2, on current priorities and planned measures to improve safety: <http://nuclearsafety.gc.ca/eng/resources/publications/reports/jointconvention/seventh-report/seventh-report-joint-convention.cfm#secK-2>

- Section K.3, on overarching issues to be addressed from the Sixth Review Meeting in 2019: <http://nuclearsafety.gc.ca/eng/resources/publications/reports/jointconvention/seventh-report/seventh-report-joint-convention.cfm#secK-3>

Read the full report now

at <http://nuclearsafety.gc.ca/eng/resources/publications/reports/jointconvention/seventh-report/seventh-report-joint-convention.cfm>