



Supplementary Information

Presentation from the Canadian Nuclear Laboratories

In the Matter of the

**Canadian Nuclear Laboratories,
Chalk River Laboratories**

Application to amend its Chalk River
Laboratories site licence to authorize the
construction of a near surface disposal
facility

**Commission Public Hearing
Part 2**

May 30 to June 3, 2022

Renseignements supplémentaires

Présentation des Laboratoires Nucléaires Canadiens

À l'égard de

**Laboratoires Nucléaires Canadiens,
Laboratoires de Chalk River**

Demande visant à modifier le permis du site des
Laboratoires de Chalk River pour autoriser la
construction d'une installation de gestion des
déchets près de la surface

**Audience publique de la Commission
Partie 2**

30 mai au 3 juin 2022

We would like to acknowledge



The Chalk River Laboratories site is located on the unceded and unsurrendered territory of the Algonquin Anishnaabe people. As an organization, CNL recognizes and appreciates their historic connection to this place. CNL also recognizes the contributions that First Nations, Métis, Inuit and other Indigenous peoples have made, both in shaping and strengthening this community in particular, and this province and country as a whole.



Canadian Nuclear Laboratories | Laboratoires Nucléaires Canadiens

Near Surface Disposal Facility Project

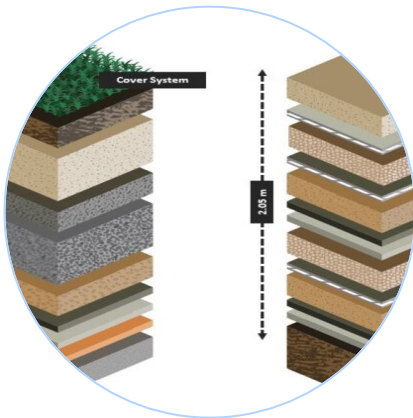
May 30, 2022 | Commission Hearing – Part 2 | CMD 22-H7.1D



Disposal is safe. Disposal is not abandonment.



Exceeds regulatory requirements and employs the best available technology



Multi-barrier system to isolate and contain the waste for as long as the inventory is hazardous



Evaluates all the worst plausible scenarios and demonstrates the public remains safe – even in the far future



Strict waste acceptance criteria to control the inventory and application of modern waste standards



Institutional controls safeguard the facility for as long as required; no intent to abandon

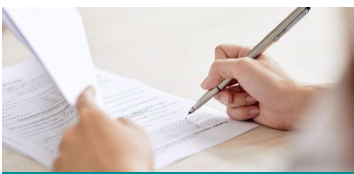


Committed to dialogue



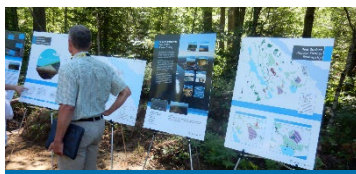
2016 - 2017

CNL submits NSDF
Project Description



2017

CNL submits draft
Environmental Impact
Statement (EIS)
for general review and
comment



2018 - 2020

CNL addresses all
comments and revises
technical documents



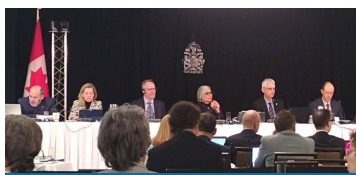
2020

CNL submits final EIS
and responses to all
public and Indigenous
comments



2021

Final EIS is accepted by
CNSC



2022

Public hearings – 2022
February and 2022
May/June



Building relationships with Indigenous communities





Public Key Concerns Raised during Engagements



Justification for the Project



Waste inventory



Design & engineering



Long-term monitoring & accountability



Alternative means assessment

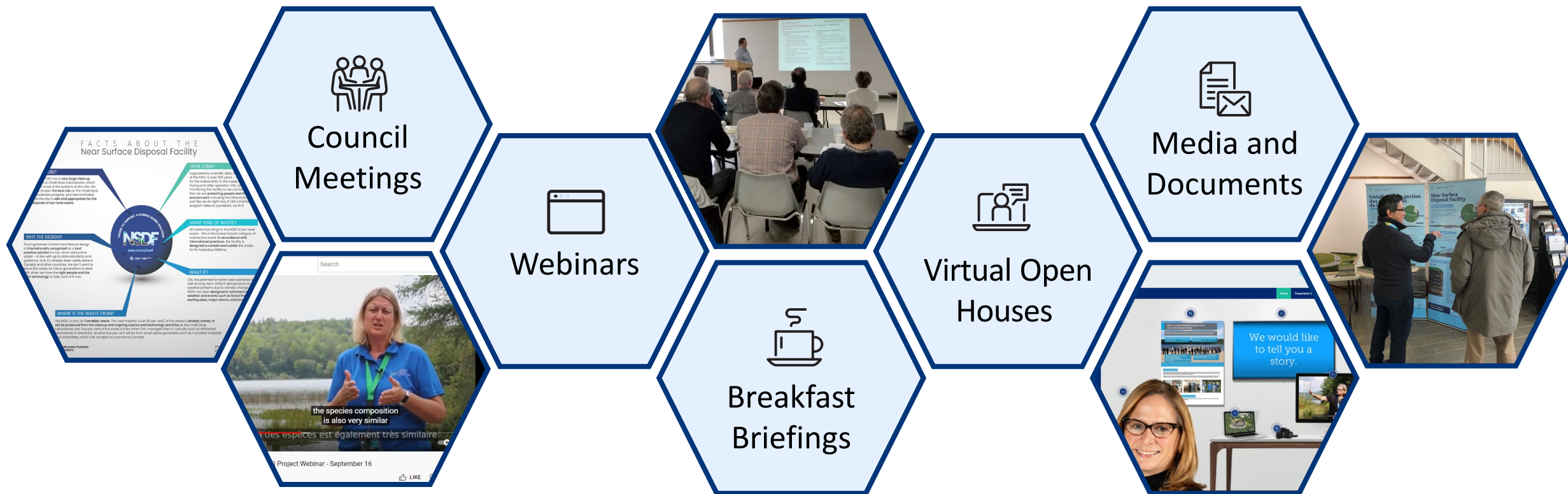


Environmental events



Protection of the Ottawa River

Engagement to address public key concerns





A February 2022 survey of area residents showed that awareness of the NDSF has increased. Over half of residents surveyed from Renfrew County, Pembroke and Pontiac have heard of the project.





Meegwetch. Thank you. Merci.



Justification for the Project



Waste inventory



Design & engineering



Long-term monitoring & accountability



Alternative means assessment



Environmental events



Protection of the Ottawa River



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Environmental Assessment and Environmental Protection

May 30, 2022

232-508760-130-000 - UNRESTRICTED



Justification for the Project



Waste inventory



Design & engineering



Long-term monitoring & accountability



Alternative means assessment



Environmental events



Protection of the Ottawa River

First in Canada, but not first of a kind

International experience supports local disposal solution for complex contaminated sites which are undergoing clean up missions. An engineered containment mound is also most suitable for large volumes of bulk low-level waste.






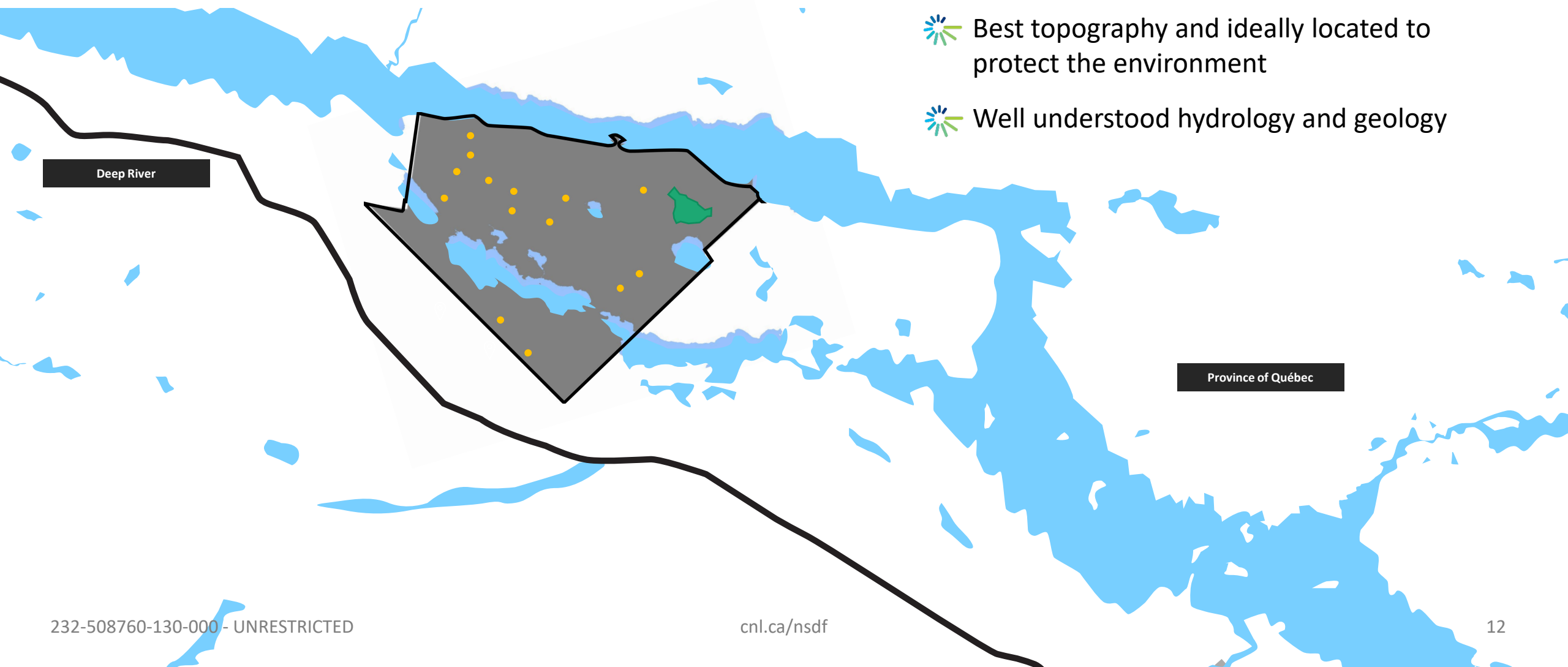
Portsmouth – Pike County, Ohio



Oak Ridge – Oak Ridge, Tennessee

Alternative means assessment

-  Owned by AECL and host to existing waste management capacity
-  Best topography and ideally located to protect the environment
-  Well understood hydrology and geology





The proposed project will enhance
the level of protection of the Ottawa River.
Drinking water in any location downriver
from the Chalk River Laboratories site is
not at risk.



Meegwetch. Thank you. Merci.



Justification for the Project



Alternative means assessment



Protection of the Ottawa River

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Long-Term Safety Case

May 31 & June 1, 2022



Justification for the Project



Waste inventory



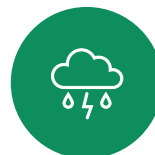
Design & engineering



Long-term monitoring & accountability



Alternative means assessment



Environmental events



Protection of the Ottawa River

Waste inventory



Low-level waste is suitable for disposal in an engineered near surface facility



Waste from only Canadian sources – mostly includes large volumes of contaminated soils and demolition debris



Strict waste acceptance criteria controls the inventory to ensure it is not hazardous after the design life



All waste – including legacy waste – is characterized using modern waste characterization approaches and standards

Design & engineering

The proposed project exceeds Canadian regulatory requirements and is aligned to international standards.



Management of waste is commensurate with the hazard



Assessment of future impacts to public and environment encompasses when maximum impact predicted to occur



Predicted impact is not greater than the current permissible regulatory limits



Multiple safety functions



Containment of radioactive waste



Isolation of radioactive waste



Surveillance and control of passive safety features



The engineered containment
mound will withstand a significant
seismic event.



Meegwetch. Thank you. Merci.

Errata

CNL Commission Members Document CMD-22-H7.1

- The reference found on Figure 18 (Ontario Geological Survey, Report 211, 1981) is incorrect.
- The reference should be: Ontario Geological Survey (OGS). 1981. *Radioactive Mineral Deposits of the Pembroke-Renfrew Area*. ISSN 0706-4551. ISBN 0-7743-4920-4.
- The NSDF Safety Case is available to the public and has the correct reference.



Waste inventory



Design & engineering



Environmental events

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Commission Hearing – Part 2
CMD 22-H7.1D

Indigenous Engagement

June 2, 2022



Active listening, learning & engagement



Incorporation of Traditional Knowledge



True collaborations



CNL's Reconciliation Action Plan goals



CNL is on a reconciliation journey together with local Indigenous peoples and communities



CNL builds positive long-term relationships based on mutual understanding and respect



CNL is collaborating in several key areas: employment, economic development, training, capacity building and environmental monitoring

Application of Free Prior and Informed Consent



CNL is fully aligned with the Government of Canada on the principle of FPIC and committed to advancing Canada's policy and objectives



Participation of Indigenous peoples in work undertaken by CNL ensures consideration of Indigenous knowledge



Collaboration, mutual respect, ongoing participation and relationship building



CNL is committed to ongoing
and tailored engagements specific to
community preferences.



Meegwetch. Thank you. Merci.



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True collaborations



Incorporation of Traditional Knowledge



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Requested Licence Amendment

June 3, 2022



Justification for the Project



Waste inventory



Design & engineering



Long-term monitoring & accountability



Alternative means assessment



Environmental events



Protection of the Ottawa River

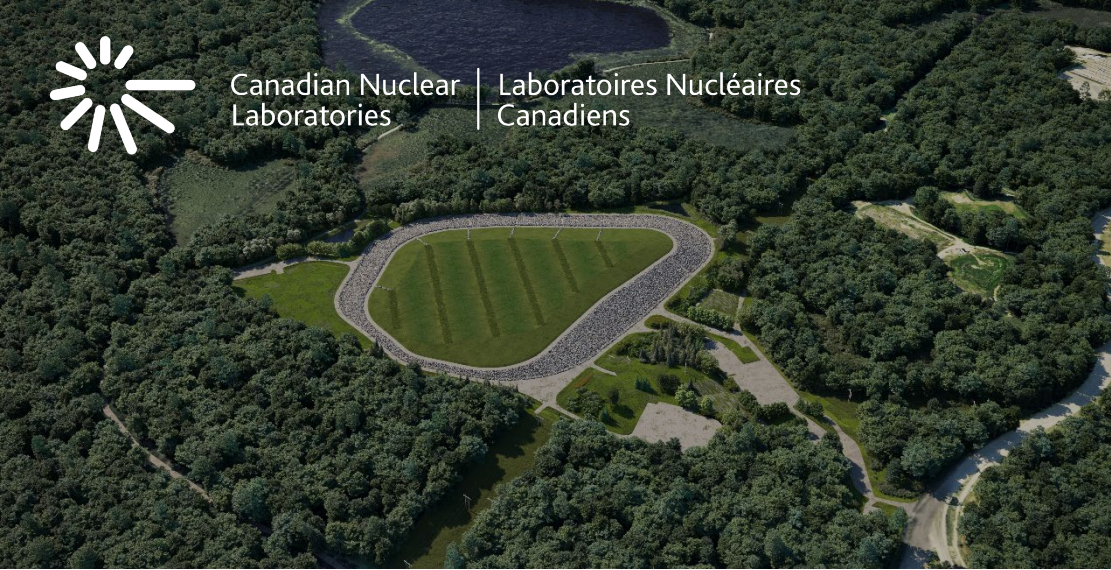


Canadian Nuclear
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Laboratoires Nucléaires
Canadiens





Long-term monitoring & accountability

- ✦ The Government of Canada through AECL is the long term owner
- ✦ CNL is committed to and will provide ongoing stewardship of the NSDF
- ✦ Safety and security for future generations is paramount

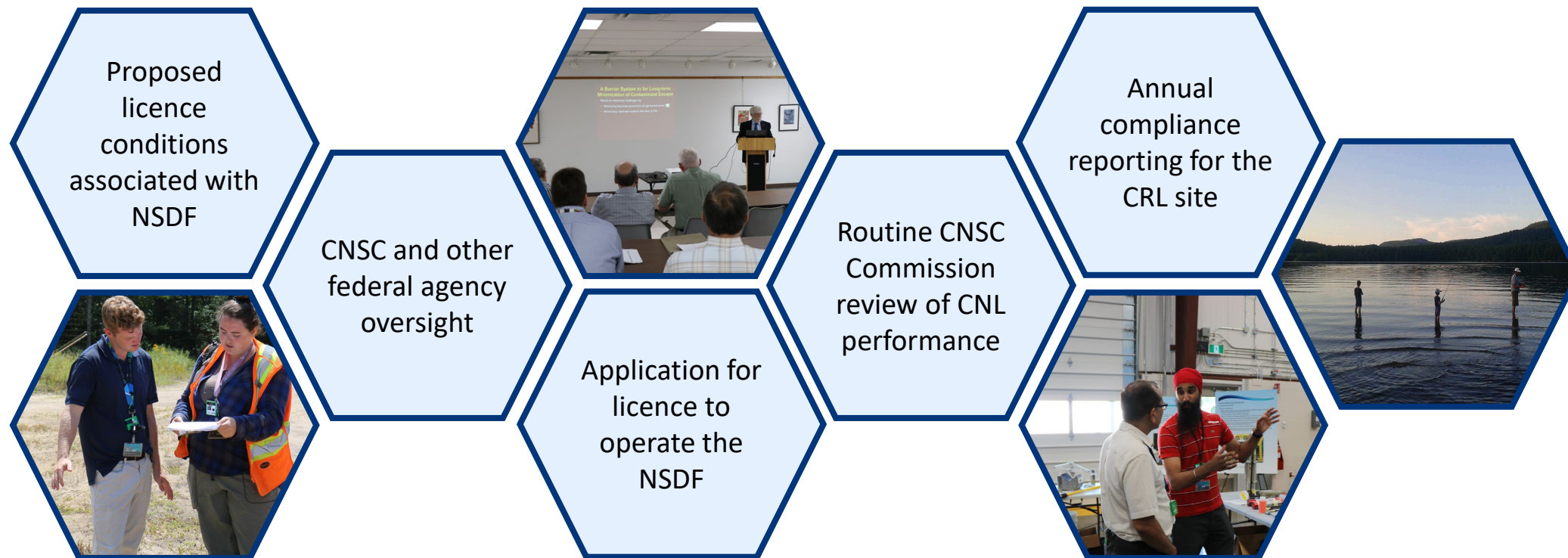




Our commitments

-  We apply modern waste management standards and technologies to reduce risks associated with radioactive wastes
-  We continue to engage with the public and Indigenous peoples and proactively address concerns
-  We ensure the protection of human health and the environment during every phase of the project
-  We carry out periodic reviews and updates of the safety case through all licensing stages

CNL is held accountable





CNL employees live here and have an interest in doing the right thing for their community.



Meegwetch. Thank you. Merci.



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@CanadianNuclearLaboratories



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cnl.ca/nsdf



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▶ www.engagewithcnl.ca/nsdf/video