



Some Current Legal Issues – a Regulatory Perspective



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Overview



- About the CNSC
- Some recent legal developments in Canada:
 - *Nuclear Liability and Compensation Act*
 - recent jurisprudence
- Some current legal issues:
 - federal review of environmental assessment law
 - *UN Declaration on the Rights of Indigenous Peoples*
 - post-Fukushima – global accountability for safety
 - readiness for new technologies

Canadian Nuclear Safety Commission



- Regulates the use of nuclear energy and substances to protect health and safety of persons, national security and the environment
- Implements Canada's international commitments on the peaceful uses of nuclear energy
- Disseminates objective scientific, technical and regulatory information to the public



*Canada's nuclear regulator – over 70 years' experience*₃



Nuclear Liability and Compensation Act

- In force January 1, 2017; implements the *Convention on Supplementary Compensation*, permitting Canada to ratify
- Sets absolute liability limit of an operator of a nuclear installation at an amount that will increase to \$1 billion over 4 years –
 - \$650 million at proclamation, \$750 million, \$850 million, \$1 billion
- Operators must carry financial security to address liability
- Form of financial security:
 - operators to cover liability amount with insurance from approved insurer
 - subject to Minister's approval, operators permitted to cover up to 50% of their liability with other forms of financial security (s. 28, NLCA)

Nuclear Liability and Compensation Regulations

- designate nuclear installations
- set classes of nuclear installations and,
- liability limits commensurate with their risk



Nuclear Liability and Compensation Act (2)

Role of Regulator – technical advisor, under new law:

- The CNSC is advisor to the Minister of Natural Resources on development of regulations with respect to designation of nuclear installations (s. 7(1))
- Statutory obligation on insurers to report to Minister on suspension or cancellation of insurance (s. 30)
- Penalty scheme under NLCA
- The CNSC will keep apprised of licensees' compliance with NLCA, but won't administer it – nuclear liability and nuclear safety are different (*Energy Probe v. Canada (AG)*, [1994] O.J. No. 553)

Recent Jurisprudence on CNSC Decisions



Darlington new build – Judicial review of EA and licence decisions on new NPP

Canada et al. v. Greenpeace Canada et al., 2015 FCA 186, leave to appeal denied April 28, 2016 (SCC No 36711)

Darlington refurbishment – Judicial review of EA by CNSC of proposal for NPP life extension

Greenpeace Canada et al. v. AG Canada and Ontario Power Generation Inc., 2016 FCA 114

Canada et al. v. Greenpeace Canada et al.



2015 FCA 186, leave to appeal denied (SCC file No 36711)

- Proposal to build up to 4 new reactors at existing NPP
- The CNSC was “Responsible Authority” to conduct EA under CEAA, then consider site preparation licence under NSCA
- 17-day public hearing in 2011 resulted in positive EA determination and issuance of licence to prepare site
- 4 NGOs challenged the EA and licence decision by the CNSC
- NGOs were successful at Federal Court level, unsuccessful at Federal Court of Appeal – see *Nuclear Law Bulletin* No. 96, vol. 2015/2, at <https://www.oecd-nea.org/law/nlb/nlb-96/>
- **By decision dated 28 April 2016, the Supreme Court of Canada denied leave to appeal – without costs, no reasons**

Greenpeace Canada et al. v. AG Canada and OPG



2016 FCA 114

- Project to extend life of 4 operating reactors by 30 years
- The CNSC was “Responsible Authority” under CEAA to conduct EA; the project was then subject to licensing under NSCA
- EA hearing resulted in CNSC finding there would be “no significant adverse environmental effects”
- This decision was challenged by 4 NGOs before licensing was considered; NGOs were unsuccessful at Federal Court
- NGOs appealed to the Federal Court of Appeal
- The CNSC authorized the refurbishment by licence in late 2015

Federal Court of Appeal dismissed the appeal 13 April 2016

- see *Nuclear Law Bulletin* No. 97, vol. 2016/1, at <https://www.oecd-nea.org/law/nlb/nlb-97/>



Conclusions From These Cases

- Appellate court deference to the CNSC in its EA decision-making, as it is the expert nuclear regulator
- For EA of a nuclear project, there must be a full assessment of the project proponent's plan for long-term waste management
 - this does not require there to be a permanent waste facility in existence, when a “workable alternative solution” was assessed for its environmental impact as part of the EA
- The choice as to what types of accidents should be assessed for their environmental impact must be reasonable
 - it is not reasonable to assess the potential impact of all accidents, however improbable
 - the threshold of one in a million probability is reasonable



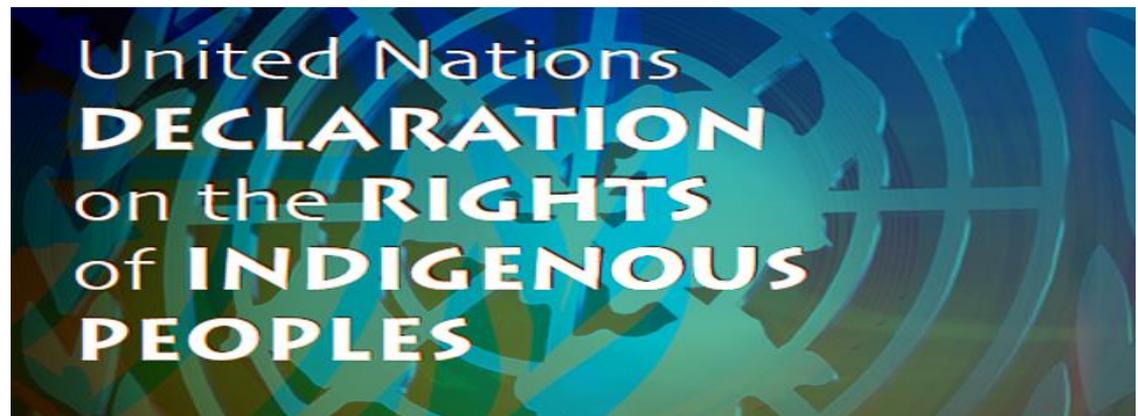
Current Issue #1 – CNSC Role in EA

- Life-cycle regulating begins with EA, integrates results into regulatory oversight for nuclear projects
- Current framework for nuclear projects:
 - **Canadian Environmental Assessment Act (CEAA 2012)**
 - The CNSC is the Responsible Authority to determine if a designated project is “likely to cause significant adverse environmental effects”
 - If the answer is no, licensing under NSCA follows
 - **Nuclear Safety and Control Act (NSCA)**
 - The CNSC regulates “to prevent unreasonable risk to the environment”
 - If project is not designated under CEAA 2012, licensing requires assessing environmental impact and preventing environmental risk
- EA process review – Expert Panel, recommended changes

Current Issue #2 – Implementing UNDRIP Principles



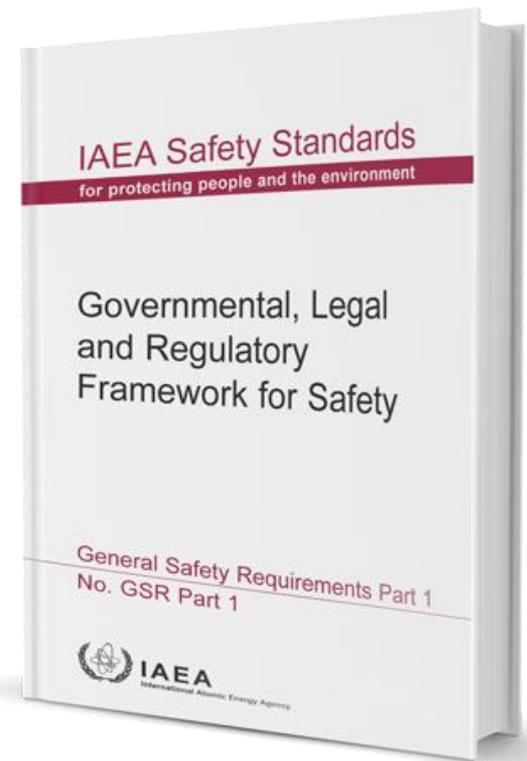
- UNDRIP is an international human rights standard
- Consultation, honour of the Crown – s.35, Constitution
- “free, prior and informed consent” – article 19
- Goal of reconciliation with Indigenous peoples of Canada
- Working Group of Ministers to review laws, policies



Current Issue #3: Global Accountability for Nuclear Safety



- A nuclear accident anywhere is an accident *everywhere*
- National responsibilities with global impacts
- *Convention on Nuclear Safety* – peer review process
- IAEA Integrated Regulatory Review Service (IRRS) – peer review missions
- WANO and industry peer review
- How do we, collectively, enhance safety and ensure accountability?
- Importance of transparency



Current Issue #4 – Readiness for New Technologies – Small Modular Reactors



- Most designs still conceptual – novel features have potential benefit, but pose uncertainties
- Credible science and technology information is critical to support (and assess) safety claims
- The CNSC is also looking at other regulators' SMR work:
 - US NRC: design certification process; developing pre-licensing feedback mechanism for vendors
 - UK ONR: Generic Design Assessment – focused on adequacy of design processes and safety claims, using existing assessment standards to conduct reviews



CNSC Work Respecting SMRs

➤ Vendor Design Review (VDR)

- early feedback and identification of key issues, any fundamental barriers to licensing – **not** design certification

➤ SMR Discussion Paper (DIS–16-04)

- lots of feedback – existing regulatory framework adequate, with graded approach, streamlining – need for common understanding

➤ IAEA's *SMR Regulators' Forum*

- technology-neutral pilot project, facilitated by IAEA Scientific Secretary (Canada, China, Finland, France, Korea, Russian Federation, USA)
- not to develop separate SMR requirements, but to understand impacts on existing frameworks, develop common positions



CNSC's Vendor Design Reviews

VDR No	Country of origin	Company	Reactor type / Output per unit	Status
1	Canada / U.S.	Terrestrial Energy	Molten salt integral / 200 MWe	In progress – pending completion September 2017
2	U.S. / Korea/ China	UltraSafe Nuclear/Global First Power	High temperature gas prismatic block / 5 MWe	In progress – pending completion March 2018
3	Canada	LeadCold Nuclear	Molten lead pool fast spectrum / 3 – 10 MWe	In progress – pending completion June 2018
4	Canada / U.S.	StarCore Nuclear	High temperature gas prismatic block / 10 MWe	Pending start July 2017
5	U.S.	Advanced reactor concepts	Sodium pool fast spectrum /100 MWe	Pending start fall 2017
6	U.K.	U-Battery	High temperature gas prismatic block / 4 MWe	Pending start fall 2017



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Questions?

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