

**From:** [Brennain Lloyd](#)  
**To:** [Consultation \(CNSC/CCSN\)](#)  
**Subject:** Northwatch feedback on comments for a new draft REGDOC-1.1.5, Licence Application Guide: Small Modular Reactor Facilities  
**Date:** November-20-18 4:22:54 PM  
**Attachments:** [Northwatch Feedback – REGDOC-1.1.5 SMR Licence Application Guide.pdf](#)

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Directorate of Regulatory Improvement and Major Projects Management  
Canadian Nuclear Safety Commission  
P.O. Box 1046, Station B  
280 Slater Street  
Ottawa, ON, Canada K1P 5S9

Sent by email:

Please find attached Northwatch's feedback on Comments on draft REGDOC-1.1.5, Licence Application Guide: Small Modular Reactor Facilities.

Thank you for your attention.

Brennain Lloyd  
Northwatch Project Coordinator

On 2018-10-29 2:43 PM, CNSC.Info.CCSN@canada.ca wrote:

> The Canadian Nuclear Safety Commission (CNSC) has posted the comments received for the draft regulatory document REGDOC-1.1.5, Licence Application Guide: Small Modular Reactor Facilities. The CNSC is inviting the public to provide feedback on these comments, with a deadline of November 20, 2018.

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> REGDOC-1.1.5 is to support a licence application to prepare a site for, construct or operate a small modular reactor (SMR) facility for submission to the CNSC. The regulatory document also provides information about the CNSC's safety and control areas that must be considered by an applicant.

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> For more information:

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> <http://www.nuclearsafety.gc.ca/eng/acts-and-regulations/regulatory-documents/history/regdoc1-1-5.cfm>

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> For all the latest CNSC news, visit CNSC's homepage at <http://www.nuclearsafety.gc.ca/eng/>

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Brennain Lloyd  
Cell 705 493 9650

# NORTHWATCH

November 20, 2018

Directorate of Regulatory Improvement and Major Projects Management  
Canadian Nuclear Safety Commission  
P.O. Box 1046, Station B  
280 Slater Street  
Ottawa, ON, Canada K1P 5S9

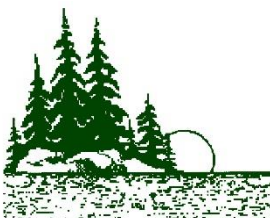
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## **Re. Feedback on Comments on draft REGDOC-1.1.5, Licence Application Guide: Small Modular Reactor Facilities**

On October 29<sup>th</sup> the Canadian Nuclear Safety Commission (CNSC) issued a notice that it has posted the comments received for the draft regulatory document REGDOC-1.1.5, Licence Application Guide: Small Modular Reactor Facilities and was inviting the public to provide feedback on these [comments](#), with a deadline of November 20, 2018.

Northwatch has reviewed the fifteen submissions, including Northwatch's own submission, and provides the following comments as feedback to the CNSC:

- We reviewed our own submission in light of the comments provided by others and with consideration to additional information that has become available since the September 28<sup>th</sup> deadline for initial submissions; we provide the following points of feedback:
  - Our views and analysis, as expressed in our submission, are largely unchanged
  - In particular, our comments with respect to the lack of clarity around scope and terminology, the need for transparency and openness including in the case of regulatory developments and vendor Reviews, and our concerns about the CNSC's "graded" regulatory approach remain unchanged
  - As a result of further exposure to CNSC and industry generated information and discussion related to SMRs, we would add the following issues as matters of concern that should be addressed through the federal policy, legislation or regulation and should be noted in the REGDOC in order to avoid confusion or uncertainty on the part of potential proponents:



- Given the experimental nature of the technologies under discussion, the REGDOC should clearly set out that all reactors, including any that might be categorized as “small” – are subject to full review under federal environmental impact assessment legislation (currently CEAA, but in future the IAA now in the final stages of government review)
- Given Canadian policy and the environmental and proliferation risks, no technologies that will at any stage cause or include the reprocessing of irradiated fuel will be considered for approval in Canada
- Given the potential for these experimental reactors to be stranded and subsequently become a public liability, the establishment of financial assurances must be undertaken in a clear, transparent and accountable manner; the calculation of costs for dismantlement, site remediation and long term care of decommissioning, operational and fuel wastes must be undertaken on an individual project basis, peer reviewed, and final decisions made by the Finance Department with input from other federal departments; given the potential implications for both the public and proponents / operators, this should be done up front and in advance of any licensing decision
- We have reviewed the submission by Greenpeace, and support the observations and recommendations included in that submission; in particular, we support the Greenpeace comments with respect to siting, environmental assessments, the definite need for transparent accident consequence analysis, the need for transparency and traceability of novel regulatory approaches, and the issues related to waste generation and waste management
- We have reviewed the submission by the Canadian Environmental Law Association and support the observations and recommendations included in that submission; in particular, we support CELA’s submissions on the matters of applicability of federal environmental assessment law
- We have reviewed the individual submissions from several nuclear industry operators and industry associations, as well as the jointly developed table of comments by industry partners; in the interests of avoiding duplication, we will comment on only the submission by Ontario Power Generation and the attached table, it being duplicative of the several industry submission. Our comments include the following:
  - We agree with the industry comment that Small Modular Reactor (SMR) has not been well defined within the Canadian regulatory framework.
  - We disagree with the OPG suggestion that the CNSC adopt a definition of “small” that includes reactors of up to 300 MWe; on the one hand, the size definition is not of particular interest, as it is the novel and experimental nature that is of greater importance, but on the other hand – given industry’s notion that “smallness” is a rationale for relaxing regulatory requirements – an argument of 300 MWe being “small” is self serving on the part of industry and would be an irresponsible threshold for the CNSC to adopt

- We agree with the industry comment that terminology is inconsistent throughout the document; more generally, the document and CNSC’s broader regulatory approach and intentions lack clarity and transparency and the CNSC must take steps to address these deficiencies before proceeding further in the SMR reviews or regulatory efforts (including prior to completing or undertaking any additional “Pre-Licensing Vendor Design Reviews”)
- We strongly disagree with what we believe to be the intent of the industry comment with respect Access to Information; in their comment *“In future drafts, industry suggests providing contextual information on the Access to Information Act regarding pre-licensing submission applicability and opportunities for applicants to protect/remove sensitive information. This would be most beneficial to new applicants”* industry appears to be requesting that the CNSC advise future vendors and applicants in how to thwart CNSC responsibilities to conduct all matters in an open and transparent manner; **the REGDOC must in no way become a tool for placing limits on transparency** or access to information
- We agree with the industry suggestion that future drafts of this document refer to the full suite of applicable REGDOCS
- We disagree with the industry comment that there is duplication between Section 2.2.11 and Section 2.3 on financial guarantees; financial guarantees should be specifically listed under Section 2.2.11, which addresses waste management, given that costs and liabilities for the management of wastes generated by potential “small modular reactors” may be quite different than for the existing fleet of reactors, given that there may be non-utility operators and that there would quite probably be designs that produce wastes and waste types that are outside the mandate or scope of current waste management arrangements (for example, the NWMO does not have a mandate to accept wastes from non-utility generators or from Gen IV reactors, so a completely different arrangement would be required – including financial arrangements - even if the NWMO should eventually succeed in siting, constructing and operating a deep geological repository for irradiated fuel waste from the existing reactor fleet)
- Industry comments that CNSC reliance on information acquired through a VDR can be very useful, and can be used in the licensing process at the applicant’s discretion; we would note that such an argument on the part of either industry or the CNSC further illustrates why the Vendor Design Reviews must be fully transparent and all information provided or relied upon by the CNSC in coming to any conclusions or providing any advice must be publicly available
- Industry comments that compliance with CSA standards could be a concern for offshore SMR vendors who do not use current CSA standards and suggests that the CNSC consider providing additional context and guidance in this section of the REGDOC on how to address this issue; Northwatch contends that delegating rule-making and regulatory function to an industry-led organization such as the Canadian Standards Association is inappropriate in all instances; the CSA may play a role in providing guidance to industry in meeting regulatory requirements, but should be afforded no substitute rule as a rule maker or regulator

- Industry comments that many of the considerations in the second list of physical design aspects in section 2.2.5 may be unknown during the pre-licensing engagement phase as well as at LTPS since final design details --or even intended technology -- may not have been finalized; this raises fundamental questions about what the purpose or substance of prelicensing engagement could be if the reactor design is not yet known and defined at the time of “pre-licensing engagement”, and even more so if these design decisions and details are not yet known at the time of application for a License to Prepare a Site; such absence of any information about the intended design raises questions about how public engagement could be informed and meaningful, and about the vendor or licensee’s readiness to enter into a licensing process
- Industry questions whether, in reference to the first paragraph in B3 (which industry notes contains the phrase “*to initiate a technical assessment*” but more generally states that “*The preliminary description of activities and hazards provided by the proponent should outline the activities and hazards, over the life of a potential project, to an extent that will allow CNSC staff to initiate a technical assessment in order to document regulatory considerations and propose a licensing strategy*”) the applicant is expected to provide any additional information to support the “technical assessment”; this raises questions about both industry’s understanding and CNSC’s intent with respect to the pre-licensing stages. As industry has noted, the VDR is optional; as the draft REGDOC states, “*the VDR is separate from the licensing process, and its primary purpose is to inform the vendor of the design’s overall acceptability*”. B1 in this section of the REGDOC addresses the VDR process; B2 is somewhat ambiguous as to whether it pertains more to the VDR process or the licensing process, although its title of “process to establish an appropriate licensing strategy for an SMR project” strongly suggests that it pertains to the licensing process. To address industry’s question about whether an application is expected to provide “any additional information” at the step described under B3, the regulatory document should clearly set out what the information requirements are at each stage, and should confirm that any and all information shared between prospective vendors, proponents or licensees and the CNSC in the so-called “Vendor Design Review” stage is fully available in each of the stages of the licensing process, including to CNSC staff – including those who may be joining the review at licensing stages - and to the public. This question from industry illustrates why it is important that the process is well documented and transparent, and that any decisions, advice or conclusions arrived at by CNSC staff at any stage - including during the VDR stage - are traceable and transparent.

As per our September 28<sup>th</sup> comments on the draft regulatory document, we have the following three requests with respect to next steps:

**REQUEST:** That the CNSC should develop a regulatory approach for small modular reactors / advanced reactors / novel reactor technologies which provides a highly rigorous examination, has a clear and predictably methodology for assessing full life

cycle environmental and human costs, impacts and risks for a proposed technology, has a sound program for public and Indigenous involvement, had a sound program for testing technical information in an evidence-based manner, and informs an environmental assessment process under the prevailing federal and provincial legislation at the time. This regulatory approach should replace the proponent-led and graded approach proposed in draft REGDOC 1.1.5 for Small Modular Reactors.

**REQUEST:** That the CNSC should set out within the next three months their intentions with respect to any further developments in the regulatory framework as it may apply to small / novel reactor technologies.

**REQUEST:** That Northwatch and other commenters on draft REGDOC 1.1.5 be provided with a full dispositioning of their comments.

In closing, we wish to respectfully express our concerns about the CNSC's ability to develop a regulatory framework for so-called "small modular reactors" and to maintain a regulatory approach which is robust, independent and informed by the public interest. These concerns have been augmented by observing the CNSC's role in the development of the so called "SMR Roadmap" and by observing the level of independence and rigour (or absence thereof) that CNSC staff appeared to be bring to the discussion, as in evidence throughout the three day SMR showcase held in Ottawa earlier this month.

Thank you for your careful consideration of these comments.



Brennain Lloyd  
Northwatch Project Coordinator  
On behalf of Northwatch