
From: Northwatch <northwatch@northwatch.org>
Sent: September 16, 2019 11:57 PM
To: Consultation (CNSC/CCSN)
Subject: Northwatch Comments on REGDOC-2.11.1, Waste Management, Volume III: Safety Case for Long-Term Radioactive Waste Management
Attachments: Northwatch-Comments_REGDOC-2.11.1, Volume III _ 16 September 2019.pdf

September 16, 2019

Canadian Nuclear Safety Commission
P.O. Box 1046, Station B
280 Slater Street, Ottawa ON K1P 5S9

Sent by email:

RE. Northwatch Comments on REGDOC-2.11.1, Waste Management, Volume III: Safety Case for Long-Term Radioactive Waste Management

Please see attached.

Regards,

Brennain Lloyd

Northwatch Project Coordinator

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September 16, 2019

Canadian Nuclear Safety Commission
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Sent by email: cnscconsultation.ccsn@canada.ca

RE. Northwatch Comments on REGDOC-2.11.1, Waste Management, Volume III: Safety Case for Long-Term Radioactive Waste Management

On May 24, 2019 the Canadian Nuclear Safety Commission issued an invitation to comment on the “revised version of REGDOC-2.11.1, Waste Management, Volume III: Safety Case for Long-Term Radioactive Waste Management”.

The invitation posted on the CSNC web site as a “news” item included a link to a web page which included the document history of REGDOC 2.11.1, *Waste Management, Volume III: Assessing the Long-Term Safety of Radioactive Waste Management*, version 2

A summary was posted on the same page, as follows:

REGDOC-2.11.1, Waste Management, Volume III: Assessing the Long-Term Safety of Radioactive Waste Management, version 2, provides requirements and guidance to licensees and applicants for developing a safety case and supporting safety assessment for the long-term management of radioactive waste.

REGDOC-2.11.1, Waste Management, Volume III, v2 will supersede:

- *REGDOC-2.11.1, Waste Management, Volume III: Assessing the Long-Term Safety of Radioactive Waste Management*
- *G-320, Assessing the Long term Safety of Radioactive Waste Management*
- *P-290, Managing Radioactive Waste*

The following table was also included, showing “document milestones”:

Document Milestone	Dates	Links
<i>Consultation</i>	<i>May 24 to September 16, 2019</i>	<i>View the consultation version of the document (HTML version of Draft REGDOC-2.11.1, Volume III, v2) (PDF version of Draft REGDOC-2.11.1, Volume III, v2)</i>
<i>Publication</i>	<i>TBD</i>	<i>TBD</i>
<i>Consultation of G-320</i>	<i>June 2005</i>	<i>View comments received from public consultation (PDF)</i>
<i>Publication of G-320</i>	<i>December 2006</i>	<i>View G-320 (PDF)</i>
<i>Publication of REGDOC-2.11.1, Volume III</i>	<i>May 3, 2018</i>	<i>View regulatory document</i>



We were unable to find on this page or in the draft “revised” version of REGDOC-2.11.1, Volume III any note clarifying that in fact that the document which is the subject of public comment was published in May 2018 not as Volume III, but as Volume II. We find this type of simple misrepresentation to be frustrating and, frankly, annoying. While we remain unconvinced of any benefit of inserting what is currently referred to as “REGDOC-2.11.1, Volume II: Management of Uranium Mine Waste Rock and Mill Tailings” into the suite of documents which current comprise REGDOC-2.11.1, we see definite benefit in providing on the summary page and then in the “revised” an identification that the current document being referred to as Volume III was previously published as Volume II of REGDOC 2.11.1.

The table of “Document milestones” raises questions about what consultations took place but which are not reported in the table, or what the CNSC basis was for the revisions that have been made. In particular and for example:

- Twelve years passed between the publication of G-320 in December 2006 and the publication of REGDOC-2.11.1, Volume III in May 2018 but there is no indication of what related consultations or policy development occurred during this 12 year period which informed or motivated the CNSC development of REGDOC-2.11.1, Volume II (now known as Volume III) in May 2018
- While other consultations are identified (for example on G-320) there is no consultation period, focus or findings identified in relation to the development and publication of REGDOC-2.11.1, Volume II (now known as Volume III) in May 2018
- There are an estimated 849 amendments or changes between REGDOC-2.11.1, Volume II (now known as Volume III) as published in May 2018 and the draft revised REGDOC-2.11.1, Volume III as released for public comment in May 2019, but there is no record or accounting of what consultation occurred during that year and what input may have been sought that lead to the 849 amendments

Preliminary Comments on draft REGDOC 2.11.1, Volume III

The following comments are general and preliminary in nature. Northwatch has an intention to provide supplementary comments in the near future, but time constraints and other demands preclude our providing a specific time frame for those supplementary comments. Our preliminary comments include the following:

- The repeated emphasis is on demonstrating that a waste management facility’s operation will be adequate, rather than determining whether that will be the case
- The document acknowledges that concept development and site selection decisions will rely on assumptions rather than a demonstration of safety, but makes no clear statement as to the point in time / operation when the concept must be supported with evidence
- The document claims that “at the end of the facility’s lifetime, the safety case will contain all of the information that future generations should require (e.g., institutional control plans, long-term

monitoring plan)” but is silent on what worst scenarios or project reversals this information would support

- The document uses undefined terms the definition of which may be fundamental to evaluating the approach set out in the document; for example “unreasonable risk” is a highly subjective term and one which could be interpreted very differently in different circumstances or by different parties
- The CNSC use of the term “graded approach” implies that there are some circumstances, even in the management of radioactive wastes, where less rigour is required for some facilities; this notion is unacceptable
- The document states that “The licensee or applicant shall ensure that the safety case demonstrates that sound management practices have been applied to its development and the development of the facility”; it may be the responsibility of the licensee or the applicant to compile the safety case, but it is the role and responsibility of the regulator to assess the safety case, and so any “ensuring” is the responsibility of the regulator
- CNSC regulations and the meeting of its regulatory responsibilities should not rely on rules, policies, standards or guidelines which have been established by the licensees; this very much applies to the Canadian Standards Association standards, which are set by technical advisory committees populated almost entirely by the nuclear industry and their hired “specialists”, and which exclude independent and public interest participants
- Northwatch agrees that the containment and isolation of radioactive wastes is the object of waste management, including over the very long term
- The stating of the requirement that “Containment and isolation shall be shown to be provided by presenting evidence that the barrier systems retain their safety functions, under the effects of design-basis events during the safety case time frame” is too general and lacks rigour; this section should be set out in detail, and should include the requirements for disclosure of the basis for any of the proponents’ claims with respect to the performance of the various barriers in the multi-barrier system
- The requirement to present evidence that the barrier systems retain their safety functions should not be limited to “under the effects of design-basis events”; beyond design basis events are of the greater concern, and should be fully documented
- Limiting the requirement to present evidence that the barrier systems retain their safety functions to “during the safety case time frame” is too subject to interpretation on the part of the proponent
- It appears that the intention is to have the time frames determined by the proponent, presumably the outcome of estimates and modeling on the proponent’s part; this is unacceptable and lacks the necessary rigour
- As in other areas, the document suggests that the licensee or applicant will make all determinations related to assessing safety and acceptability of both facility design and site; the licenses will determine the approach and criteria used in site characterization, and then demonstrate that they have met that criteria, seemingly with no outside interference from the regulatory, civil society, outside experts, or potentially impacted communities; this approach is unacceptable
- The document states that “... impacts shall be determined quantitatively by means of conceptual and mathematical models” but conceptual and mathematical rely on estimates and assumptions, and so are not quantitative by their very nature
- While the document states that “The licensee or applicant should ensure that the facility design and its components are optimized using a well-defined and iterative process” the process appears to remain insular and the sole domain of the proponent

- The development / determination of the criteria by which the safety analysis results will be deemed acceptable is also left in the sole domain of the proponent; this is unacceptable on several grounds, but including and perhaps most importantly that it excludes those who will be subjected to results, i.e. the public
- In describing key areas of safety analysis such as *Confidence in computing tools* and *Confidence in safety analysis models* and *Interpretation of results*, among others, the document again leaves these in the sole domain of the applicant; this is unacceptable

Conclusions

Our advice moving forward is consistent with that offered with respect to next steps in our comments on *Draft REGDOC-2.11.1, Waste Management, Volume I: Management of Radioactive Waste* the development of the suite of documents that comprise REGDOC-2.11.1, Waste Management:

- Provide a complete record with respect to the revision process – including any comments received or input sought from stakeholders during the period of May 2018 to May 2019 – with respect to REGDOC-2.11.1, Waste Management, Volume III: Safety Case for Long-Term Radioactive Waste Management, Version 2
- Complete a dispositioning of comments received on each of the draft REGDOCs in REGDOC-2.11.1 and make those public
- Prepare a second draft on each of the draft REGDOCs in REGDOC-2.11.1 and make those public
- Convene a workshop with balanced participation on REGDOC-2.11.1, Waste Management (Framework and Volumes I to III)
- Invite feedback on second draft of the Framework and each of the REGDOCs in REGDOC-2.11.1, Waste Management second draft REGDOCs
- Provide participant funding to support public participation with technical support
- Complete a dispositioning of comments received on the second draft of each of the framework and the draft REGDOCs in REGDOC-2.11.1 and make those public
- Consider next steps (final draft, final version, additional consultation)

This is an extremely important suite of regulatory documents, and their development merits the CNSC taking a thoughtful and measured approach which includes public and Indigenous participation and is undertaken in an iterative and responsive fashion.

Submitted by Northwatch on September 16, 2019