

REGDOC-2.11.2: Comments received in advance of the workshop with civil society organizations and members of the public

REGDOC-2.11.2: Commentaires reçus en vue de l’atelier avec des organisations de société civile et les membres du public

Note: Comments submitted, including names and affiliations are intended to be made public, in the official language in which they are received.

Remarque : Les commentaires reçus, y compris les noms et les affiliations, seront rendus publics, dans la langue officielle dans laquelle ils auront été reçus.

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1.	Region of Durham		<p>Based on the CNSC responses to Durham Region’s submission on the decommissioning REGDOC, it is not clear whether the CNSC sees our participation in this process as valuable.</p> <p>The responses to the points we raised appear to be recitations of what is in the REGDOC, the very items we were saying don’t meet our needs. Many of the responses suggest our comments are out of scope, with the implication that the broadening the scope of the REGDOG is not up for discussion.</p> <p>The basic question for us is whether the CNSC sees itself having a role in outlining best practices for a licensee in working with their host community on a lengthy decommissioning process. The REGDOC says there must be engagement with the public and Indigenous groups and communities. It does not indicate what constitutes timely or adequate engagement. The REGDOC on Public Information and Disclosure is also not very informative in this regard.</p> <p>It is very challenging and time consuming for our staff to read and digest these highly technical documents and convey our concerns within your framework. You will note that we only commented on the decommissioning draft REGDOC as it seemed most germane to our interests though we did read the others.</p> <p>We are the host community to two of Canada’s nuclear plants and thus have definite interests in how decommissioning will be carried out, how used fuel and waste will</p>	<p>The CNSC’s public consultation process on its draft regulatory documents is targeted towards industry, civil society organizations (CSOs) and members of the public and Indigenous communities that would be impacted by the implementation of the regulatory document. CNSC staff read and take into careful consideration each comment that is submitted on its draft regulatory documents. Each comment is dispositioned in writing and made publicly available to further ensure that the process of developing regulatory documents remains transparent.</p> <p>To ensure CSOs, members of the public and Indigenous communities are increasingly engaged and informed about CNSC regulatory activities, the CNSC hosted a workshop on the draft suite of waste regulatory documents (including this REGDOC) that was held on April 23, 2020.</p> <p>Specifically with response to the comments on the scope of REGDOC-2.11.2, this document is not intended to detail of the information that a licensee would be required to submit as part of the licence application. A separate document, REGDOC 1.1.4, Licence Application Guide to Decommission a Reactor, is being drafted to capture this information and will undergo public consultation in the future.</p> <p>As outlined in REGDOC-2.11.2, the CNSC requires that planning for decommissioning take place throughout the lifecycle of a facility as it is important to ensure early engagement with surrounding communities on proposed decommissioning plans.</p>

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			<p>be managed, and so on. If our input and perspective is not pertinent or useful to you, then we won't dedicate the resources to participate.</p> <p>If some other format or avenue to gather our input would be more useful, we would be happy to discuss it. We find the current process to be very industry-oriented and rather impenetrable. It seems to be set up to serve experts rather than the public or communities.</p> <p>We look forward to hearing from you soon so that we can make a decision about the value of participating in the 3 hour webinar on March 26.</p>	<p>Section 6, Decommissioning Strategy, states that the licensee should consider public and Indigenous engagement when determining the appropriate decommissioning strategy.</p> <p>Section 7.1.1, Content of the preliminary decommissioning plan, states that a preliminary decommissioning plan shall contain a public consultation plan, including a public information program and avenues for public participation as per the requirements and guidance of REGDOC-3.2.1, <i>Public Information and Disclosure</i>.</p> <p>Section 8.1.1, Content of the detailed decommissioning plan, states that a detailed decommissioning plan shall include a summary report of any public and Indigenous consultations undertaken in preparing the detailed decommissioning plan, including issues raised and how they were considered and dispositioned.</p> <p>This draft REGDOC is complemented by CSA N294, <i>Decommissioning of facilities containing nuclear substances</i>. CSA N294 includes requirements and guidance on public and Indigenous communication and engagement as well as guidance for communication with stakeholders for complex sites. CSA N294 also requires that the decommissioning strategy consider political, social and economic impacts.</p> <p>The CNSC is currently developing REGDOC-1.1.4, <i>Licence Application Guide to Decommissioning Reactor Facilities</i>, which will further outline public and Indigenous engagement requirements and guidance regarding decommissioning.</p>
2.	Concerned Citizens of Renfrew County and Area		Q #1. The Preface of the July 2019 version of the REGDOC had language that helped clarify the facilities and activities to which it app is not clearly stated?	Section 1.2, Scope, states that the document applies to Class I and Class II nuclear facilities, uranium mines and mills, and nuclear substances and radiation devices licensees that are required to have decommissioning plans or strategies as a result of a regulatory requirement or a condition of their licence. The scope of this REGDOC was not limited following public consultation, it was actually expanded to include Class II nuclear facilities, as well as to all nuclear substances and radiation devices that are required to have decommissioning strategies or plans, and not just waste nuclear substance licensees.
3.	Concerned Citizens of Renfrew		Q #2. With regard to section 1.1, "Purpose", it should be noted that the CNSC has put forward multiple definitions of "decommissioning" that do not contain consistent language:	The intent of including an updated definition for decommissioning in the draft regulatory document was to solicit comments on it. If the Commission accepts this draft regulatory document, the definition for decommissioning in this regulatory

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	County and Area		<ul style="list-style-type: none"> ● CNSC Glossary: “Those actions taken to retire a licensed facility permanently from service and render it to a predetermined end-state condition.” ● July 2019 version of REGDOC: the administrative and technical actions taken to retire a facility from service or to cease licensed activities, and which allow the removal of some or all of the regulatory controls from a facility or location where nuclear substances are managed, possessed or stored. ● February 2020 version of REGDOC: the administrative and technical actions taken to allow the removal of some or all of the regulatory controls from a facility or location where nuclear substances are managed, used, possessed or stored. <p>Why does the definition in the CNSC Glossary not conform to that in the REGDOC? Why is “location” included as well as “facility” in the REGDOC definition? What “locations” that are not “facilities” require decommissioning?</p>	<p>document will supersede the definition for decommissioning contained in REGDOC-3.6, <i>Glossary of CNSC terminology</i>. On the next revision to REGDOC-3.6, the definition for decommissioning will then be updated to align with the definition in this REGDOC.</p> <p>The definition for “decommissioning” was amended between the July 2019 version and the February 2020 version of the document to address comments that were received during public consultation.</p> <p>“Nuclear facility” is a term used to encompass a specific set of facilities including, but not limited to, nuclear fission or fusion reactors, particle accelerators, uranium or thorium mines and mills, etc., for which the definition is found within REGDOC-3.6. This term does not encompass all licensed sites that will require decommissioning actions. To ensure that this draft regulatory document was not limited in scope, CNSC staff used the terms facilities, locations and sites in the draft regulatory document to fully encompass all situations, and to ensure that no licensee would be excluded based solely on terminology used.</p>
4.	Concerned Citizens of Renfrew County and Area		<p>Q #3. A great deal of text has been removed from section 1.1, “Purpose”, including the following:</p> <p>“The CNSC reviews every licence application to verify that licensees have made adequate provisions for decommissioning, such that workers, the public and the environment are protected. All licensees for regulated facilities or activities are required to ensure that they effectively decommission all licenced locations as appropriate. Particular decommissioning plans and strategies are evaluated through the licensing process and included as part of the licensing basis.”</p> <p>This text includes an implied commitment of the CNSC to protect workers, the public and the environment. This is important to ordinary citizens. It has been replaced by a statement that “Decommissioning actions... are taken... with due regard for the health and safety of people and the environment.” This statement is an assumption – one</p>	<p>During the public consultation phase of the development of this REGDOC, many comments were received on the scope of the document. To address these comments, CNSC staff conducted a holistic review of the purpose, scope and background of this document to ensure that each section contained the appropriate information.</p> <p>The sentence referenced is regarding CNSC staff review of licence applications. It was removed as the purpose of this document is not a licence application guide. A separate document, REGDOC 1.1.4, <i>Licence Application Guide to Decommission a Reactor</i>, is being drafted to capture this information and will undergo public consultation in the future.</p> <p>As well, the requirement to protect workers, members of the public and the environment is embedded within the CNSC’s regulations. This draft regulatory document continues to provide requirements and guidance to protect workers, the public and the environment.</p>

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			<p>that may or may not be true depending on how decommissioning actions are taken. Here it is stated as fact.</p> <p>This change to the “Purpose” was not requested by any of the reviewers. Who asked for this change? Why was it made? Does the CNSC no longer consider that a purpose of the REGDOC is to verify that licensees’ decommissioning provisions are adequate to protect workers, the public and the environment? How will it be clarified that review of decommissioning plans by the regulator is essential to protect public health and the environment?</p>	
5.	Concerned Citizens of Renfrew County and Area		Q #4. At the end of the first paragraph in section 1.2 (“Scope”) the phrase “under continuous management and regulatory oversight” has been removed. What was the reason for its removal?	<p>During the public consultation phase of the development of this REGDOC, many comments were received on the scope of the document. To address these comments, CNSC staff conducted a holistic review of the purpose, scope and background of this document to ensure that each section contained the appropriate information. This document also underwent editing to ensure that consistent and plain language was used throughout the document.</p> <p>The addition of “continuous management and regulatory oversight” did not provide information regarding the scope of the document, nor did it provide clarification, and was therefore not appropriate for this section.</p>
6.	Concerned Citizens of Renfrew County and Area		<p>Q #5. The July 2019 version of section 1.2 stated “This regulatory document is not intended... for planning for the remediation of legacy sites for which decommissioning was not planned.”</p> <p>The February 2020 version changes this to “<i>This regulatory document is not intended...for the remediation of sites or locations contaminated by residual radioactive material arising from past activities that were never subject to regulatory control or subject to regulatory control before the Nuclear Safety and Control Act (NSCA) and its associated regulations came into force.</i>”</p> <p>Although the language in both versions lacks clarity, both suggest that the REGDOC does apply to remediation of sites contaminated <u>after</u> the <i>Act</i> came into force. However, a statement in the July 2019 version that the REGDOC “may be used as guidance for scoping the regulatory oversight of remediation activities” no longer</p>	CNSC staff amended this section of the draft regulatory document to ensure that the language used was consistent to that of GSR Part 6, <i>Decommissioning of Facilities</i> . This draft regulatory document does not address the remediation of areas such as historic mines that were never subject to regulatory control or were not subject to regulatory control before the relevant Act and its associated regulations came into force. Contaminated lands that were subject to regulatory control (<i>Atomic Energy Control Act</i>) would still be subject to the provisions of this REGDOC. The draft regulatory document does state this may be used as guidance for the remediation of these. Historic properties that were not subject to regulatory control are regulated with site-specific remediation objectives set through regulatory approvals that are open for public consultation through the Commission’s public proceedings..

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			<p>appears in the February 2020 version. Removal of this statement creates doubt as to whether the REGDOC is intended to apply to remediation.</p> <p>The definition of “remediation” in the REGDOC is similar to that in the IAEA Glossary: “Any measures that may be carried out to reduce the radiation exposure due to existing contamination of land areas through actions applied to the contamination itself (the source) or to the exposure pathways to humans.” The IAEA adds, “Decommissioning can entail activities that are similar to remediation (also an authorized process), such as removal of contaminated soil from an area within the authorized boundary of a facility, but in this case, such removals are normally referred to as clean-up activities and are typically performed under the authorization for decommissioning.”</p> <p>What is the intent of the new language? If contaminated land areas are within the boundary of a currently licensed facility, are they subject to the “clean-up” provisions of the REGDOC, regardless of when the contamination occurred? Does this REGDOC have provisions related specifically to remediation, as opposed to clean-up? If not, does the REGDOC have any relevance to remediation of contaminated sites, regardless of when contamination occurred? Do <u>any</u> provisions of the <i>Act</i> and its regulations pertain to remediation of radioactively contaminated sites?</p>	
7.	Concerned Citizens of Renfrew County and Area		<p>Q #6. Language referring to “waste nuclear substance licensees” has been removed from section 1.2, “Scope”. Several matters should be clarified. Do all waste nuclear substance licensees “have decommissioning plans or strategies as a result of a regulatory requirement or a condition of their licence?” If so, why was reference to this class of licensees removed? If not, how is it determined which waste nuclear substance licensees are required to have decommissioning plans or strategies?</p>	<p>Section 1.2, Scope, states that the document applies to Class I and Class II nuclear facilities, uranium mines and mills, and nuclear substances and radiation devices licensees that are required to have decommissioning plans or strategies as a result of a regulatory requirement or a condition of their licence. The scope of this regulatory document was not limited following public consultation, it was actually expanded to include Class II nuclear facilities, as well as to all nuclear substances and radiation devices that are required to have decommissioning strategies or plans, and not just waste nuclear substance licensees.</p> <p>The licence condition to maintain decommissioning plans is a standard licence condition for waste nuclear substance licences.</p>

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8.	Concerned Citizens of Renfrew County and Area		<p>Q #7. In section 4 (“Decommissioning Strategy”) the nuclear industry requested removal of the first sentence (but not the second sentence) in the following paragraph (detailed comments table B #40):</p> <p>“The licensee shall justify the selected strategy and should conduct a comparison of alternative decommissioning strategies. The evaluation method used to select the decommissioning strategy should ensure that the relative advantages and disadvantages of the remaining strategies can be objectively compared in a systematic and traceable fashion.”</p> <p>The CNSC response was to remove the entire paragraph. No rationale or explanation was provided. The International Atomic Energy Agency, General Safety Requirements Part 6, “<i>Decommissioning of Facilities</i>,” requires that the selected decommissioning strategy be justified:</p> <p>“Requirement 8: Selecting a decommissioning strategy</p> <p>5.1. The preferred decommissioning strategy shall be immediate dismantling. However, there may be situations in which immediate dismantling is not a practicable strategy when all relevant factors are considered.</p> <p>5.2. The selection of a decommissioning strategy shall be justified by the licensee...”</p> <p>What is the CNSC’s rationale for removing language requiring the licensee to justify the selection of a decommissioning strategy? Will the international requirement to do this be ignored?</p>	<p>The second sentence in question, “The evaluation method used to select the decommissioning strategy should ensure that the relative advantages and disadvantages of the remaining strategies can be objectively compared in a systematic and traceable fashion.” was not removed following public consultation and remains in Section 6, Decommissioning Strategy.</p> <p>The requirement to justify the selected strategy was removed from this section as it was a repetition of a requirement already captured as part of the preliminary decommissioning plan.</p> <p>Section 7.1.1, Content of the preliminary decommissioning plan, states that a PDP shall include the decommissioning strategy including: the final end-state objective and the rationale for the decommissioning strategy selected, interim end states, periods of storage with surveillance and any institutional controls; as well as the assessment of alternative strategies.</p>
9.	Concerned Citizens of Renfrew County and Area		<p>Q #8. The July 2019 version, section 4 (“Decommissioning Strategy”) of the draft REGDOC stated “The following decommissioning strategies should be considered individually or in combination:” immediate (prompt) decommissioning, deferred decommissioning, and <i>in situ</i> decommissioning.</p> <p>The February 2020 version retains this language. The REGDOC considers <i>in situ</i> decommissioning to be a strategy that “should be considered.”</p>	<p>Following the public consultation phase of the development of this draft regulatory document from December 2-20, 2019, 30 comments were received. These comments are found in Table C of the disposition table “Feedback on comments”.</p> <p>Section 6.1, <i>In situ</i> decommissioning, contains pertinent information and requirements on when <i>in situ</i> may be considered as a decommissioning strategy. Specifically, Section 6.1 states that “<i>In situ</i> decommissioning may be considered a solution only under exceptional circumstances (e.g., following a severe accident) or for legacy sites”. New text was added to this section to address the feedback received from the recent IRRS mission, in particular, the following sentences: “In</p>

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			<p>Reviewers commented extensively on this matter (see detailed comments table B 1, 2, 3, 4, 5, 6, 7, 87, 34, 42, 44, 48, 53, 76. 85; table C 3, 15, 19). Most of these comments either rejected this strategy outright, or called for further clarification.</p> <p>In addition, over 100 comments were submitted to cnscconsultation.ccsn@canada.ca prior to the deadline of December 20th, stating that “On-site Disposal of Nuclear Reactors Is Not Acceptable.” These comments reveal substantial public concern about on-site disposal of nuclear reactors. By scrolling over the pdf version of the “detailed comments table” for the <i>Decommissioning</i> REGDOC one can read the title REGDOC_2_11_2_Detailed_comments_table_(closed_October_16_2019). Yet the consultation period lasted until December 20, 2019. Hence, these public comments have never been acknowledged by CNSC staff, and no explanations have been provided for why they were not accepted.</p> <p>It is extremely important that there be additional discussion on this matter.</p> <p>The International Atomic Energy Agency released an Integrated Regulatory Review Service report following a September 2019 peer review of Canada’s nuclear safety framework. It states:</p> <p style="padding-left: 40px;">“CNSC should consider revising its current and planned requirements in the area of decommissioning to align with the IAEA guidance that entombment is not considered an acceptable strategy for planned decommissioning of existing NPPs and future nuclear facilities.”</p> <p>The International Atomic Energy Agency, General Safety Requirements Part 6, “<i>Decommissioning of Facilities</i>,” “establishes the requirements that must be met to ensure the protection of people and the environment, both now and in the future.” It states that for nuclear power plants and other nuclear facilities, entombment (also known as <i>in situ</i> decommissioning):</p> <p style="padding-left: 40px;">“Entombment, in which all or part of the facility is encased in a structurally long lived material, is not considered a decommissioning strategy and is not</p>	<p>situ decommissioning shall not be considered a reasonable option for planned decommissioning of existing nuclear power plants, or for future nuclear facilities and situations where removal is possible and practicable.” Together with the existing text, this aligns with IAEA guidance, while taking the Canadian context into consideration.</p> <p>All information contained in the draft regulatory document surrounding in situ decommissioning should be read in its entirety so that a sentence is not read out of context.</p> <p>The CNSC does not promote or prescribe decommissioning strategies. Proponents must propose their preferred strategy as part of their decommissioning plan. Any proposed decommissioning strategy will be assessed by the CNSC to ensure the protection of the health and safety of the public and the environment. The CNSC requires that the selection of the decommissioning strategy be justified and that, when a licensee is determining the decommissioning strategy, various factors be considered (e.g., potential worker and public radiological doses, conventional safety, the availability of infrastructure for radioactive waste, public and Indigenous engagement, etc.). If <i>in situ</i> confinement is used as a decommissioning strategy and results in a waste disposal facility, the CNSC requires that all regulatory requirements for that type of facility be met and that safety be demonstrated via a science-based safety case and post closure safety assessment, as outlined in draft REGDOC-2.11.1, <i>Waste Management, Volume III: Safety Case for Disposal of Radioactive Waste</i>, Version 2.</p>

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			<p>an option in the case of planned permanent shutdown. It may be considered a solution only under exceptional circumstances (e.g. following a severe accident).”</p> <p>Before including this clear statement in GSR Part 6 (in 2014), the IAEA gave entombment serious consideration as a possible decommissioning strategy. In December 2005 it published IAEA-TECDOC-1478, <i>Selection of decommissioning strategies: Issues and factors: Report by an expert group.</i>”</p> <p>That group’s report did consider entombment as among three possible decommissioning strategies, similar to the draft REGDOC. But the report included cautionary language:</p> <p>“Entombment requires a robust regulatory/legal framework. The lack of international experience on entombment and its regulatory complexity may make this strategy the least desirable...”</p> <p>The following actions may be considered in the case of entombment:</p> <ul style="list-style-type: none"> • The activity concentration of long-lived alpha radionuclides needs to be considered with regards to the suitability of such waste to be disposed in a near surface configuration. • Public consultation in order to obtain acceptance for a waste repository.” <p>There is no evidence that the CNSC considered such matters before including entombment as a viable decommissioning strategy in REGDOC-2.11.2. Entombment (“<i>in situ</i> decommissioning”) first appeared in the Canadian Standards Association Nuclear Standard N294 (“<i>Decommissioning of facilities containing nuclear substances</i>”) in July 2009, was “reaffirmed” twice, and now appears in REGDOC-2.11.2.</p>	

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			<p>It must be stressed that <i>in situ</i> decommissioning is not a decommissioning strategy, but a means of creating a radioactive waste repository. Relevant requirements for radioactive waste storage and disposal are contained in other REGDOCs and should not be duplicated in REGDOC-2.11.2.</p> <p>However, a new section 4.1 (“<i>In situ</i> decommissioning”) has now been included in the February 2020 version of the REGDOC. It contains new and ambiguous language that could be interpreted as promoting the consideration of <i>in situ</i> decommissioning as a strategy for “future nuclear facilities”:</p> <p style="padding-left: 40px;">“<i>In situ</i> decommissioning shall not be considered a reasonable decommissioning option for planned decommissioning of existing nuclear power plants, or for future nuclear facilities and situations where removal is possible and practicable.”</p> <p>This statement could be interpreted to mean that <i>in situ</i> decommissioning <u>is</u> a reasonable option for new facilities - such as small modular reactors - if their removal is not possible and practicable. Allowing small modular reactors to be abandoned in place would significantly reduce their life cycle costs, but would also be highly controversial, as demonstrated by the comments submitted (but never acknowledged) on REGDOC-2.11.2.</p> <p>Why is the CNSC promoting use of a decommissioning strategy that is specifically proscribed by international standards? Who requested the addition of new language on <i>in situ</i> decommissioning of “future nuclear facilities”? Why is this language so ambiguously worded? Is it intended to allow, or prohibit, <i>in situ</i> decommissioning of future nuclear facilities? How will this be clarified?</p>	
10.	Concerned Citizens of Renfrew County and Area		<p>Q #9. Section 4 includes the statement “When determining the appropriate decommissioning strategy, the licensee should consider the following, as appropriate,” following by a bulleted list of considerations.</p> <p>Two items in the list contained in the July 2019 draft REGDOC have been removed:</p>	<p>CNSC staff consider “fuel disposal facilities” to be a type of waste management facility, which is captured under bullet 13 of the list as follows: “availability of waste management facilities, locations or sites”. The bullet in question was therefore removed to avoid duplication and to provide clarity that a fuel disposal facility is a waste management facility.</p>

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			<ul style="list-style-type: none"> ● the availability of a fuel disposal facility if applicable; and ● other political, social and economic considerations. <p>No request was made to remove the bullet referring to the availability of a fuel disposal facility, so it is unclear why this was done. While this now appears as a consideration in a second bulleted list (“The decommissioning strategy should be reviewed and updated in light of the following,”) it is relevant to both lists. With regard to the item, “other political, social and economic considerations,” the nuclear industry commented (table B, #40) that this is “broad and open to variations in interpretation. It should be removed.” The CNSC removed the bullet without responding to this comment.</p> <p>Consideration of the items in the bulleted list is not framed as a requirement (“When determining the appropriate decommissioning strategy, the licensee should consider the following, as appropriate”). The two deleted items are significant considerations. Why were they removed?</p>	<p>CSA N294, <i>Decommissioning of facilities containing nuclear substances</i> complements draft REGDOC-2.11.2. CSA N294 contains the clause to consider political, social and economic considerations when determining the decommissioning strategy. CNSC staff removed the clause from the draft REGDOC as these factors are outside the mandate of the CNSC.</p>
11.	Concerned Citizens of Renfrew County and Area		<p>Q #10. The July 2019 version of the REGDOC, Section 5, “Planning for Decommissioning” stated:</p> <p style="padding-left: 40px;">The licensee shall prepare a waste management strategy that identifies the categories and estimated quantities of all waste streams that will be generated during decommissioning, and the planned disposition path in compliance with the applicable clauses of draft REGDOC-2.11.1, <i>Waste Management, Volume I: Management of Radioactive Waste</i> [6].</p> <p>A similar version of this requirement (modified to allow the waste management strategy to be incorporated within the Preliminary Decommissioning Plan (PDP) rather than submitted as a “stand-alone document”) is in the February 2020 draft REGDOC (section 5.2, “Waste management strategy”).</p> <p>A concern is that introduction of term “planned disposition path” creates regulatory uncertainty. No language or requirements pertaining to a “disposition path” for radioactive waste can be found in draft REGDOC-2.11.1, <i>Waste Management, Volume I: Management of Radioactive Waste</i>. “Disposition” is not defined in the CNSC</p>	<p>The term disposition is defined in CSA N292.0, <i>General principles for the management of radioactive waste and irradiated fuel</i>, as: “consignment of, or arrangements for the consignment of, radioactive waste for some specified (interim or final) destination. For example, for the purpose of processing, disposal or storage”. CSA N292.0 complements draft REGDOC-2.11.2.</p> <p>Requirements and guidance regarding the management of radioactive waste are set out in draft REGDOC-2.11.1, <i>Volume I: Management of Radioactive Waste</i>, as well as the CSA Group standards that complement it.</p>

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			Glossary. What is meant by “disposition” -- is it disposal, or something else? What are the regulatory expectations for the long-term management of decommissioning wastes?	
12.	Concerned Citizens of Renfrew County and Area		<p>Q #11. Section 5.1.1 (“Content of the preliminary decommissioning plan”) required “the identification of any features of the surrounding natural and social environment that could be significantly affected by the decommissioning process.”</p> <p>Why was this requirement removed? Who asked for its removal? (Note: this is <u>not</u> the same as providing “details regarding the surrounding environment” in the “description of the location of the facility”).</p>	<p>During public consultation, reviewers requested that the content of a preliminary decommissioning plan list in draft REGDOC-2.11.2 be consistent with the information contained in CSA N294, <i>Decommissioning of Facilities Containing Nuclear Substances</i> (which had undergone public consultation in 2019). As a result, CNSC staff aligned the list, which caused the removal of this bullet point. CNSC staff understand the need for the comprehensive and detailed lists to be aligned to assist licensees in the development of their preliminary decommissioning plans.</p> <p>In addition, the content of the detailed decommissioning plan list of draft REGDOC-2.11.2 includes the following line item: “a characterization of potential environmental effects and the measures that will be employed to mitigate and monitor the effects.”</p>
13.	Concerned Citizens of Renfrew County and Area		<p>Q #12. Section 6.2 (“Detailed Decommissioning Plan”) (DDP) states that “A DDP for a nuclear facility with a Class I or uranium mines and mills licence shall include, as applicable... a waste management plan.” In section 6.4 (“Waste management plan”), the requirement for the plan be prepared “prior to decommissioning” has been removed. Why was this change made?</p>	<p>The requirement to prepare a waste management plan prior to decommissioning remains in the draft regulatory document.</p> <p>The first clause of section 8.4, Waste management plan, states that the licensee shall prepare a waste management plan, which is in Section 8, Preparation for Decommissioning, and so the plan inherently is required to be submitted and approved prior to the execution of decommissioning actions, i.e., the removed wording was redundant.</p>
14.	Concerned Citizens of Renfrew County and Area		<p>Q #13. In the July 2019 version of the REGDOC, Section 7 (“Execution of Decommissioning”) stated that the “the licensee shall...</p> <ul style="list-style-type: none"> ● consider the waste hierarchy, including preventing generation, reducing volume and radioactivity content, reusing and recycling materials and components, and disposing of the waste; ● characterize and manage all remaining operational waste from the facility and all waste from decommissioning; and ● ensure traceability of all waste generated.” 	<p>The clauses in question were not removed from the draft regulatory document, they were however all moved to more appropriate sections to improve clarity. The first bullet was moved to section 8.4, waste management plan, and reads as follows: “The licensee shall prepare a waste management plan that considers the waste hierarchy, including preventing generation, reducing volume and radioactivity, reusing and recycling materials and components, and disposing of the waste.”</p> <p>The second bullet was moved to section 9.2, waste management, and reads as follows: “The licensee shall characterize and manage all remaining operational waste from the facility or activity and all waste from decommissioning.”</p>

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			<p>These are clearly important requirements.</p> <p>Why have they been removed? Who asked for their removal?</p>	<p>The third bullet was also moved to section 9.2, waste management, and reads as follows: “The licensee shall ensure the traceability and maintain up-to-date records of the waste generated and managed in the facility or transferred to another facility or waste organization, specifying its quantities, characteristics and destination.”</p>
15.	Concerned Citizens of Renfrew County and Area		<p>Q #14. Section 7.1 (“Storage with surveillance”) includes the statement that</p> <p>“During the storage with surveillance period, the licensee may perform activities to reduce risks at the facility, in accordance with the licence and consultation with the CNSC. These may include... removal and recycling of non-contaminated or slightly contaminated equipment.”</p> <p>The term “slightly contaminated equipment” lacks clarity and precision. The July 2019 version of the REGDOC contained examples (“turbines, pumps and heat exchangers”) that appear to be major reactor components. These examples were removed from the February 2020 version.</p> <p>What is the meaning of “slightly contaminated equipment”? Why were the examples removed? Can a precise definition of levels of different radionuclides in “slightly contaminated equipment” be provided? What levels of activation products would be found in slightly contaminated equipment”? If this term cannot be precisely defined, why should there be provision to allow its removal during “storage with surveillance”? How would the provisions of the Detailed Decommissioning Plan (including “a description of... the nature and source of potential significant risks to workers, the public and the environment (including estimates of doses)”) be applied to removal of “slightly contaminated equipment”?</p>	<p>Preparatory actions for decommissioning (including storage with surveillance) can include decontamination, and work of removal and/or dismantling of unnecessary structures, systems and components, providing these activities are within a licensee’s licensing basis. These activities may be done under a CNSC licence for operation depending on the licence requirements, programs and procedures. What activities may be done would be limited to those activities covered by the existing licensing basis. This is in alignment with SSG-47, <i>Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle Facilities</i>.</p> <p>In accordance with a licensee’s waste management program, a licensee must characterize and manage all waste arising from operational and preparatory decommissioning activities.</p> <p>Requirements for safe waste management practices are found in REGDOC 2.11.1 Volume I. REGDOC 2.11.1 Volume I states that licensees should optimize the clearance of materials and locations from CNSC regulatory control. Exemption quantities, conditional clearance levels and unconditional clearance levels can be found in the <i>Nuclear Substances and Radiation Devices Regulations</i>.</p>
16.	Concerned Citizens of Renfrew County and Area		<p>Q #15. In section 8 (“Completion of Decommissioning”), changes have been made to the required contents of the end-state report. These include:</p> <ul style="list-style-type: none"> • Change of the requirement to “describe waste quantities and dispositions” to “a summary of the waste quantities generated and managed, and disposition routes.” • Addition of “an inventory of nuclear substances that will remain on site.” 	<p>The additional language added to the first bullet in question adds additional direction and clarity to the licensee and does not change the intent behind the clause.</p> <p>The addition of the second bullet in question is not to solely accommodate in situ decommissioning but to capture all situations that could arise at the completion of decommissioning stage. This could include in situ decommissioning that would result in a waste disposal site, as well as mine and mill tailing sites but also addresses</p>

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			<p>The latter change was not requested by reviewers during the public comment period. It appears to be one among a number of changes that were made by the CNSC to facilitate <i>in situ</i> decommissioning and abandonment of waste on existing nuclear sites. Making such changes to the REDGOC without affording an opportunity for public review and comment violates principles of accountability and transparency.</p> <p>Why were these changes made? Who requested them? Will the Commission require additional opportunities for public review and submission of comments on REGDOC-2.11.2 before making a decision on its approval? Will the approval process be done in public, with consideration of public comments?</p>	<p>the need to ensure that no radioactive material above exemption or clearance levels will remain on site for those properties that will be released unconditionally from CNSC oversight.</p> <p>Minimal changes were made to this draft regulatory document following consultation. The workshops held between CNSC staff and industry and CNSC staff and CSOs were intended to provide the opportunity for industry and the public to comment on these changes.</p>
17.	Concerned Citizens of Renfrew County and Area		<p>Q #16. In section 8.1 (“Post decommissioning”), new language has been inserted stating:</p> <p style="padding-left: 40px;">“The licensee is responsible for implementing and maintaining the post-decommissioning plans and institutional controls but may assign that responsibility to a third party with their agreement and the Commission’s acceptance.”</p> <p>Who requested the addition of this language? Why is this not reflected in the detailed comments table? How would the Commission decide if a third party is qualified to maintain institutional controls?</p>	<p>CNSC staff amended this clause to improve clarity and accuracy. A licensee cannot assign their responsibilities to a third-party without the acceptance of the Commission. The original wording of the clause in question would give the impression that a licensee could assign their responsibilities to a third party without the Commission’s acceptance, and without agreement from the third party, which is not accurate.</p>
18.	Concerned Citizens of Renfrew County and Area		<p>Q #17. Section 10 (“Radiological and Hazardous Surveys”) requires the licensee to “perform radiological and non-radiological surveys throughout the various phases in the lifecycle.” In the July 2019 version of the REGDOC, the first suggested survey objective was</p> <p style="padding-left: 40px;">“identifying potential radiation risks for workers, the public and the environment associated with specific decommissioning activities”</p>	<p>The intent of the clause in question was expanded to include radiological and non-radiological risks, which is why the specific reference to “radiation” was removed. However, CNSC staff understand that this may cause confusion and so have amended the bullet as follows to add additional clarity: “identifying potential radiological and non-radiological risks for workers, the public and the environment associated with specific decommissioning activities.”</p> <p>The word “radiological” is not included, as the surveys should include both radiological and non-radiological aspects.</p>

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			<p>In the February 2020 version of the REGDOC the word “radiation” has been removed. None of the survey objectives in the new version of the REGDOC specifically mention survey of radiation risks to workers or the public.</p> <p>Who asked for this change? Does the CNSC recognize the importance of surveying radiation risks to workers and the public during decommissioning activities? Will language referring to survey of radiation risks be restored in the REGDOC?</p>	
19.	Saskatchewan Environmental Society		REG DOC 2-11-2 Decommissioning, paragraph 8: This includes defining “future use of, or any restrictions on the future use of, the facility or location...”. Shouldn’t this include a requirement that the responsible party define how compliance with such restrictions will be assured over the extended post-decommissioning period. Is it reasonable to assume that present administrative systems will continue <i>ad infinitum</i> ?	Section 10, Completion of Decommissioning, of draft REGDOC-2.11.2 contains requirements and guidance regarding the post-decommissioning phase, including institutional controls for the site. Further information regarding institutional controls can be found in draft REGDOC-2.11.1, REGDOC-2.11.1, <i>Waste Management, Volume I: Management of Radioactive Waste</i> and REGDOC-2.11.1, <i>Waste Management, Volume III: Safety Case for the Disposal of Radioactive Waste, Version 2,</i>
20.	Ralliement contre la pollution radioactive		<p>How do the REGDOC guarantee that SMR will not be situ decommissioned, leaving dangerous wastes in remote regions?</p> <p>Why the REGDOC does not support the inherited responsibility of the Canadian government to completely dismantle old nuclear reactors without making entombment regardless of whether the complete decommissioning has been planned. This would align with the IAEA guidance that entombment is not considered an acceptable strategy for planned decommissioning of existing NPPs and future nuclear facilities. Could you request the waste owners evaluate the cost over a long time period of the temporary storage in engineered waste packages? It would then be possible to compare these costs to a medium depth management facility for intermediate level waste and a high level radioactive waste management facility.</p>	<p>See response to comment #23 in Table F.</p> <p>The acceptability of storage and/or disposal facilities for the management of radioactive waste is outside the scope of this REGDOC.</p> <p>The CNSC does not promote or prescribe waste disposition paths. Any proposed waste management storage or disposal facilities and activities will be assessed by the CNSC to ensure the protection of the health and safety of the public and the environment.</p> <p>For a waste management facility, the regulations require applicants to submit comprehensive information on their programs (e.g , safety analysis, fitness for service, etc) the design and components of the proposed facility, the manner in which the facility is expected to operate, facility operating manuals and procedures, and any potential impacts on the site or surrounding environment. Applicants are required to identify the manner by which the facility may fail to operate correctly, predict the potential consequences of such a failure and establish specific engineering measures to mitigate the consequences to acceptable levels.</p>

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				CNSC staff review all submissions to determine if the proposed waste management safety and control measures described in the application and the documents that support the application are adequate and meet the applicable requirements.