

**Comments received during public consultation for Draft REGDOC-1.2.3, *Licence Application Guide: Licence to Prepare Site for a DGR* /
Commentaires reçus dans le cadre du processus de consultation du REGDOC-1.2.3, *Guide de présentation d’une demande de permis : Permis de préparation de
l’emplacement d’un dépôt géologique en profondeur***

Comments received:

- during first round (February 22 to May 23, 2023): fourteen (14) submissions
- during feedback period (May 24 to June 8, 2023): eight (8) submissions

Commentaires reçus :

- lors de la première période (du 22 février au 23 mai 2023) : quatorze (14) soumissions
- lors de la période des observations (du 24 mai au 8 juin 2023) : huit (8) soumissions

Remarque : Aucun commentaire n’a été reçu en français. Tous les commentaires sont présentés dans la langue dont ils ont été soumis, donc le tableau qui suit est en anglais seulement.

1 Comments considered for revisions to REGDOC-1.2.3 / Commentaires qui ont été pris en compte pour les révisions au REGDOC-1.2.3

No.	Reviewer	Section	Reviewer’s Comment	Feedback commenter	Feedback comment	CNSC response
7.	Northwatch	1 Introduction	This section expresses unsupported assumptions, such as that the geological formation in which a deep geological repository (DGR) would be constructed would be stable and that this presumed stability would not be reduced in the process of constructing the DGR Similarly, this statement expresses the objective of a DGR isolating and containing the radioactive wastes as if a certainty rather than a requirement for which a proposed DGR must be carefully assessed to determine the likelihood of that objective being achieved			The definition of a DGR is consistent with the CNSC glossary and with the definition provided by the International Atomic Energy Agency (IAEA). No change was made.
8.	Northwatch	1 Introduction	In the statement that a “DGR is a facility where radioactive waste is placed in a deep, stable, geological formation (<u>usually several hundred metres or more</u> below the surface)” the REGDOD creates the very false impression that there is a “usual” that can be referenced in describing construction or operating experience with a DGR for used fuel waste, which is in direct conflict with the reality that there is no licence or operating DGR for nuclear fuel waste anywhere in the world; false narratives such as these are very problematic, and undermine any potential for public confidence in the regulatory system			The definition of a DGR is consistent with the CNSC glossary and with the definition provided by the International Atomic Energy Agency (IAEA). No change was made.
9.	Northwatch	2 Overview of site preparation	the unnumbered figure with the title “Title: Pre-closure and post-closure licensing stages and lifecycle activities for a deep geological repository” is confusing and unclear; for example, earlier sections the “safety case” and this figure introduces the term “post closure safety case” and omits any identification of the “safety case” in the table depicting project/application development			See response to comment #40.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
10.	Northwatch	0 Preface	The preface sets out the reliance of this draft Regulatory Document on other documents which are not readily available to the commenting public, such as CSA N-292.7, Deep geological disposal of radioactive waste and irradiated fuel; as set out in a previous section, while Northwatch does have an account which is expected to provide Northwatch with access to relevant CSA document, the system is dysfunctional and Northwatch was unable to access and consider CSA N-292-7 as part of our review.			<p>The CNSC provides free access to CSA nuclear standards through the CSA Communities portal. Technical support is available to users by email at community_admin@csagroup.org.</p> <p>Additionally, the CNSC provides a free, subscription-based service that has additional functionality for reviewing CSA standards. This service includes search, annotation and bookmarking. To obtain access to this service, or for any issues with accessing CSA standards, please contact the CNSC at consultation@cnsccsn.gc.ca.</p>
11.	Northwatch	1 Introduction	CSA N292.7, <i>Deep geological disposal of radioactive waste and irradiated fuel</i> is described in this section as a document “which provides specific criteria associated with many of the topics covered” but as noted above this document was not available to Northwatch for this review, and will have been equally or even more unavailable to others			See response to comment #10.
12.	Northwatch	2 Overview of site preparation	the section states that CNSC's requirements for site characterization for radioactive waste disposal facilities, which include DGRs, are found in REGDOC-2.11.1, Waste Management, Volume I: Management of Radioactive Waste and REGDOC-2.11.1, Waste Management, Volume III: Safety Case for the Disposal of Radioactive Waste; Northwatch wishes to refer CNSC staff reviewing REGDOC 1.2.3. to Northwatch's comments on REGDOC-2.11.1, Volumes I and III for an outline of concerns with respect to those documents and identified deficiencies			CNSC staff review every comment submitted during the REGDOC public consultation process. All comments submitted by Northwatch were carefully considered during the consultation on REGDOC- 2.11.1, Volumes I and III. CNSC staff either made changes, saved the comments for future consideration, or made no change, in accordance with the rationale provided by CNSC experts. REGDOC-1.2.3 is a licence application guide, which means that it points to the existing regulatory requirements and guidance, including REGDOC- 2.11.1, Volumes I and III, which were approved for publication by the Commission in 2021. No change was made in response to this comment.
13.	Northwatch	2 Overview of site preparation	the section states that the applicant must provide a post-closure safety case in support of a licence to prepare site application for a DGR facility and references REGDOC-2.11.1, Waste Management, Volume III for a description of requirements and guidance for developing a post-closure safety case are provided; as per the preceeding comment, Northwatch wishes to refer CNSC staff reviewing REGDOC 1.2.3. to Northwatch's comments on REGDOC- 2.11.1, Volumes III for an outline of concerns with respect to that document and identified deficiencies			See response to comment #35.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
14.	Northwatch	0 General	<p>The document is frequently overly general or ambiguous</p> <p>The document lacks sufficient footnotes or references; many statements would benefit from a supporting reference or explanation.</p> <p>The document conveys a sense, overall, that if a proponent brings forward a license application related to a deep geological repository, such as an application for a licence to prepare the site, it will be approved; it lacks the impartiality or neutrality that would convey that such projects would only be licensed if the proponent had provided a sound and scientific basis for the contents of its application</p>			<p>REGDOC-1.2.3 was written by CNSC experts who have referenced the work of their international peers on best practices for effective nuclear waste management. The document cites over 80 standards, codes and guidance and reference documents, all of which have relevant information to guide an applicant in developing their submission and inform the CNSC in its review of the application.</p> <p>The CNSC engages with applicants over a number of years to ensure that applications are complete and meeting legal requirements before they are brought to the Commission for a decision. Note that a DGR application would have to obtain a favourable impact assessment before any CNSC licensing decision could be made. The document was revised in response to feedback received in the public consultation.</p>
15.	Northwatch	2 Overview of site preparation	<p>the section on site evaluation describes how “continued evaluation (of site characteristics) ensures that the facility’s design basis and safety case will remain current with potential changing environmental conditions or modifications to the facility itself, including continued optimization of the facility design up until final closure” which suggests that facility design will be fluid and that there will not be an actual and detailed project design at this first licensing stage (which contradicts earlier sections); the section does not set out any requirements or methodology for site evaluation or any standards or measures by which the licensees materials with respect to site evaluation will be assessed</p>			<p>Section 2.2 has been revised for clarity as follows:</p> <p>Site evaluation determines whether the characteristics of a site and the surrounding region are appropriate for the lifecycle activities of a nuclear facility regulated under the NSCA. The process of site evaluation begins before the applicant applies for a licence to prepare a site and continues throughout the lifecycle of a DGR facility. Information from the site evaluation is a key input into DGR facility design and safety case and informs environmental reviews. Continued evaluation ensures that the facility’s design basis and safety case will remain current with potential changing environmental conditions or modifications to the facility itself.</p> <p>Site evaluation activities carried out during the site preparation stage of a DGR facility include site characterization and the continued development and update of a safety case for both the pre- and post-closure period.</p> <p>The expectations for site evaluation for a DGR facility are provided in CSA N292.7 [2].</p>
16.	Northwatch	2 Overview of site preparation	<p>the statement that “Site evaluation activities carried out during the pre-closure period of a DGR facility include site characterization and the development and iterative updates of a safety case for both the pre- and post-closure safety assessment” is utterly ambiguous; to provide any</p>			<p>See response to comment #15.</p>

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			meaningful guidance, the requirements for site evaluation activities and documentation of the site evaluation must be clearly set out, including what aspects or values are being evaluated and what the evaluation criteria is and what the consequence for license application approval would be given one evaluation outcome versus a different evaluation outcome			
17.	Northwatch	2 Overview of site preparation	the subsection in “site characterization” outlines that the applicant must describe the planned activities and provide data about the site characteristics in their application for but provides no direction or setting out of requirements for a) how site characterization activities are to be carried out, b) what site characterization activities must be carried out, c) how site characterization activities will be documented, d) how the outcome / findings of site characterization activities will be documented, and e) what requirements will be in place for public disclosure, f) how the CNSC will evaluate site characterization activities, documentation and outcomes, and g) how the CNSC will engage the public and Indigenous peoples in their evaluation of site characterization activities, documentation and outcomes			<p>The purpose of a licence application guide, including draft REGDOC 1.2.3, is to map the existing licensing requirements and guidance to obtain a licence to prepare a site for a DGR. For site characterization specifically, this existing information is provided in more detail as guidance in REGDOC 1.2.1 and the requirements for site characterization for a disposal facility in REGDOC 2.11.1, volume III. CNSC does not prescribe how or what site characterization activities are carried out; CNSC staff review the application information used by proponents to demonstrate how requirements and guidance are being met.</p> <p>For a) through d) the link is established within REGDOC 1.2.1 (DGR site characterization), that indicates a management system (REGDOC -2.1.1 Management System and CSA N286-12) be implemented for site characterization. Requirements and guidance on management system programs, processes and procedures are described in section 3.1. This includes considerations around documentation and organizational structure. The text in section 3.1 has been changed to specifically include site characterization in the list of items the applicant's management system should include.</p> <p>Regarding e), information around public disclosure is provided in section 3.16. Note that f) and g) are out of scope, since the licence application guide is for applicants. All documentation that an applicant uses to demonstrate how requirements are met and guidance is followed are provided to CNSC for assessment.</p>
18.	Northwatch	2 Overview of site preparation	this section states that “Site characterization data demonstrates how radioactive waste will be contained and isolated from the environment over a geologically long timeframe and is supported by the post-closure safety " which again identifies a set of biases, assumptions or pre-suppositions on the part of the CNSC or at least on the part of the draft REGDOC authors; in reality, quality site			<p>Section 2.3, on site characterization, was revised for clarity as follows:</p> <p>The applicant must describe the planned activities and provide data about the site characteristics in their application for a licence to prepare site for a DGR facility.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			characterization data would be expected to support an evaluation of how radioactive waste might be contained and isolated from the environment over a geologically long timeframe and to support an evaluation of the potential for post-closure safety; repeatedly, the REGDOC makes statements and assertions about the generic long term safety of a deep geological repository, in the absence of any repository design, site information, or scientific or technical evaluations			Site characterization data are used to develop an understanding of the site and its expected future evolution. It is essential information for assessing radioactive waste containment and isolation from the environment over a geologically long timeframe. Site characterization information is part of site evaluation and a component of the post-closure safety case. The applicant begins collecting data before submitting a licence application and continues doing so throughout the licensed phases of the DGR facility.
21.	Northwatch	1 Introduction	As noted above, this REGDOC sets out that the safety case must be provided as part of the application, but then indicates that “This document is not intended to.... describe the requirements and guidance needed for a safety case for disposal facilities” without setting out clearly and specifically where those requirements and guidance are situated and how they intersect with the requirements and guidance of this regulatory document; a later section identifies REGDOC-2.11.1, <i>Waste Management, Volume III: Safety Case for Disposal of Radioactive Waste</i> as a relevant document, but neither draft REGDOC 1.2.3. or REGDOC 2.11.1 describe how these two regulatory documents intersect			See response to comment #2 and #22.
22.	Northwatch	2 Overview of site preparation	this section describes “development of the post-closure safety case” as an activity which “will continue throughout the lifecycle of the DGR facility” which is potentially in conflict with the unqualified statement in Section 1 that the application provides “provides the safety case for the site preparation phase of the project”, meaning that the safety case for the project will be provided at the site preparation phase of the project			There are no new requirements or guidance established in REGDOC 1.2.3. The safety case for disposal is expected to evolve using an iterative approach, as defined in REGDOC 2.11.1, volume III, section 5.2. No change was made.
23.	Dr. F. R. Greening	3.1 - 3.11	Comments on CNSC REGDOC-1.2.3, Licence Application Guide: Licence to Prepare Site for a Deep Geological Repository: My comments are mainly based on Sections 3.1 to 3.11 of the Guide, which are referred to in the document under the heading “Waste Management,” where we read statements such as:	Northwatch	Northwatch supports the comments submitted by Dr. Frank Greening and particularly appreciate his observations that with respect to waste management the regulator document is so vague as to render it essentially meaningless in sections, and his stressing of the importance of the regulatory document using	Requirements relating to the inventory, specifically waste acceptance criteria, are found in REGDOC-2.11.1, <i>Waste Management, Volume I: Management of Radioactive Waste</i> , which sets requirements for waste management programs, including those associated with the records of the waste inventory. No change was made.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>(i) The applicant's management system should account for:</p> <ul style="list-style-type: none">• data control, verification and validation• data format• traceability of data• configuration control, including data, for environmental, meteorological, geological, geophysical, survey, hydrological, biological factors• measuring and test equipment• use and control of computer modelling• field and laboratory work control• calculations and analyses• measures to ensure that the results of the site characterization are accurate, complete, reproducible, traceable and verifiable <p>(ii) The applicant must address:</p> <ul style="list-style-type: none">• quantities and physical characteristics, including hazards posed to health and safety, of each substance or waste, including by-products for all substances or by-products that will be regulated or controlled, and the appropriate list of regulations governing their control <p>These two items are totally unacceptable because they are far too vague and therefore essentially meaningless. For example, what do the following statements really mean?</p> <p>1. The applicant's management system should account for data control, data calculations and analyses..., etc.</p> <p>2. The applicant must address quantities and physical characteristics, including hazards posed to health and safety, of each substance or waste ,..., etc.</p> <p>Statements such as these, using language such as "must address" or "should account for" are of no practical use in assessing, and ultimately mandating, what will be permitted for placement in the DGR, or how the waste will behave over time, and how radioactive emissions "from each substance" will be identified and characterized, both within and external to the depository.</p> <p>Also of great concern is the REGDOCs use of the word "data." The dictionary definition of this word is: Information in the form of a collection of discrete values</p>		<p>terminology which is precise and which demands precise information in return. Dr. Greening correctly points out that exact guidance is needed with respect to what "data" is required and how the data should be obtained, verified or validated and noted that the issue of poor data has caused many significant errors in previous attempts by the Canadian nuclear industry to provide reliable estimates of radionuclide inventories for proposed radioactive waste repositories</p>	

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>describing specific quantities obtained by measurement, observation, or analysis. Unfortunately, REGDOC-1.2.3 provides no guidance on what “data” are required and how they should be obtained, verified or validated. And, how do we know if a “data” set is complete?</p> <p>This issue has caused many significant errors in previous attempts by the Canadian nuclear industry to provide reliable estimates of radionuclide inventories in its proposed radioactive waste depositories. For example, in the period 2010 to 2014, I was able to prove that OPG and/or NWMO had seriously underestimated, sometimes by factors of more than 100, the radionuclide activities in its proposed Low and Intermediate Waste DGR, slated for construction on the Bruce Nuclear site near Kincardine in Southwest Ontario.</p> <p>More recently, starting in 2017, I have discovered similar errors in the radionuclide inventory published by Canadian Nuclear Laboratories for its NSDF, proposed for construction at its Chalk River Ontario, site. In its initial 2017 EIS Report, CNL estimated there would be 996 tonnes of uranium in its NSDF, only to change this estimate in a later report to a value of about 100 tonnes; and this was done by CNL without providing a word of explanation.</p> <p>Most unfortunately, I see nothing in the CNSC’s REGDOC-1.2.3 that addresses and thereby attempts to prevent a recurrence of this problem with future radionuclide inventory estimates. This is especially of concern with NWMO’s proposed spent nuclear fuel DGR. Volatile and highly mobile radionuclides such as H-3, C-14, Cl-36, etc, are notoriously difficult to measure and/or calculate, but are often presented in inventory tabulations as precise quantities that are known to within a few percent. This is entirely misleading and unacceptable. REGDOC-1.2.3. must address this issue by delineating precisely how such data should be determined and reported.</p> <p><i>Proposed change:</i> REGDOC-1.2.3. must be changed to address the collection, verification and validation of radionuclide inventory data to prevent the reporting of erroneous inventories as has happened in the past.</p>			

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
24.	CNL, Bruce Power, NB Power, NWMO, OPG	n.a.	<p>Industry appreciates the opportunity to comment on this draft REGDOC. To ensure its requirements and operational impacts are fully understood, licensees would welcome the opportunity to review future drafts as well to offer constructive feedback before this document is submitted to the Commission for approval and publication.</p> <p>During a collective review of this initial version, subject matter experts from Nuclear Waste Management Organization, Bruce Power, Ontario Power Generation, New Brunswick Power, and Canadian Nuclear Laboratories identified the following three themes to which many of our major comments relate to:</p> <ol style="list-style-type: none">1. This document lacks consistency with CSA N292.7. Since the CSA N292.7 is referenced frequently within this REGDOC, these inconsistencies will add confusion.<ol style="list-style-type: none">a. The figure provided in Section 2 is an example of many of these inconsistencies.2. The document references many CSA standards and other REGDOCs that are not in scope for a Licence to Prepare Site (LTPS) for a DGR.3. Throughout the document, there appears to be requirements listed that come from the NPP Licence Application Guide (LAG); the requirements for many of the SCAs are more onerous or wouldn't be expected for a DGR LAG. <p>Specific examples are provided in the table below along with other requests for clarification.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<ul style="list-style-type: none">- Agreed that there are inconsistencies between REGDOC and CSA standards- Additional issues are created by the CSA standards not being readily available to the public, being an industry product, and not built for purpose- Agreed that REGDOCs should set out their requirements as a stand-alone document, and not depend on by-reference-only inclusions	The CNSC has reviewed all the comments received during the public consultation period and thanks all commenters for their input. The REGDOC document has been revised in response to applicable comments related to the scope of the document.
25.	Athabasca Chipewyan First Nation	2	<p>On review of REGDOC-1.2.3., Section 2, pre-closure and post closure licencing stages and lifecycle activities for the DGR, it is noted and recognized that Indigenous engagement is included as ongoing activities. ACFN acknowledges the importance of continuous, iterative engagement throughout the licencing stages and lifecycle activities of the DGR.</p> <p>ACFN recognizes and commends the requirement to have a licence to prepare a site before any site preparation work for a DGR facility begins. ACFN notes that licenced site preparation activities such as, clearing vegetation, grading, fencing, infrastructure, establishing access roads and parking, construction of structures, e.g., Flood protection, erosion control, non-nuclear structures, and systems and</p>			As part of the CNSC's existing licensing requirements, as outlined in REGDOC-1.2.3, an applicant is required to conduct early and ongoing engagement with potentially impacted Indigenous Nations and communities for projects and licence applications that could raise the CNSC's Duty to Consult, as identified in REGDOC-3.2.2, <i>Indigenous Engagement</i> . This will include working directly with local Indigenous Nations and communities to understand and mitigate potential impacts on Indigenous or treaty rights. No change was made in response to this comment.

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>components, likely have impacts on how Indigenous communities are able to use the land and practice their rights as Indigenous peoples.</p> <p><i>Proposed change:</i> ACFN recommends that licences required above activities to prepare a site and site evaluations (section 2.1) needs to take into account potential impacts on Indigenous peoples and their ability to exercise rights. This would include working directly with local Indigenous communities to understand and mitigating concerns and impacts from site preparation activities and creating a communication plan for the purpose of engaging Indigenous communities.</p>			
26.	CNL, Bruce Power, NB Power, NWMO, OPG	0 General	<p>MAJOR: Most of the REGDOCs/CSAs referenced are not scoped for DGR</p> <p>Impact: Creates significant barriers to any organization considering undertaking a DGR. The risks, complexity, and costs of licencing a DRG should not be the same as an NPP.</p> <p><i>Proposed change:</i> Consider developing separate codes/regulations or expanding on the scope to include DGR.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- As per above, agreed that REGDOCs should set out their requirements as a stand-alone document, not depend on by-reference-only inclusions</p> <p>- This comment by industry is unclear; are they saying that the risks and complexities of a DGR are less than that of an NPP, or that the licensing process should be less complex in order to be less costly to the waste generators?</p> <p>- In either case, we disagree; the risks and complexity of a DGR operation, including surface and subsurface, are as complex as a NPP, albeit differently complex, and the uncertainties are at least equal; over the post-closure period the risks and uncertainties of a DGR are likely to be greater than that of a NPP (given that the risks of the NPP are largely transferred to a DGR in the post closure period); in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the full range of risks and uncertainties, including consideration of post-closure issues during the pre-operational licensing stages</p>	<p>The preface of REGDOC 1.2.3 provides information on the application of the graded approach and specifically points to more information about the application of the graded approach for a geological disposal project, as specified in CSA N292.7. CSA N292.7 was specifically developed for geological disposal, and is a key technical reference provided in REGDOC 1.2.3. To further underline this, the following text was added to the Preface:</p> <p>A graded approach, commensurate with risk, may be defined and used when applying the requirements and guidance contained in this regulatory document. The use of a graded approach is not a relaxation of requirements. With a graded approach, requirements are applied in proportion to risks and particular characteristics of the facility or licensed activity.</p> <p>Potential applicants are encouraged to engage early with the CNSC, to clarify regulatory expectations.</p>
27.	CNL, Bruce Power, NB	0 General	MAJOR: Technical scope for a DGR appears to have been copied almost entirely from REGDOC-1.1.3 Licence	Canadian Environmental Law Association,	- The view expressed by the nuclear industry that a DGR is a project with	The technical scope outlined in the REGDOC is limited to site preparation for DGR facility. However, to further

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
	Power, NWMO, OPG		<p>Application Guide: Licence to operate a Nuclear Power Plant.</p> <p>Impact: Creates significant barriers to any organization considering undertaking a DGR. The risks, complexity, and costs of licensing a DRG should not be the same as an NPP.</p> <p><i>Proposed change:</i> Consider the technical scope in relation to a DGR. Similar comments have been made about SMR regulations being “too stringent” for the intent of preparing for a DGR.</p>	Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>less risks and less complexity and should therefore be a lower cost licensing process is of great concern</p> <p>- Whether the regulatory requirements should or should not be the same or greater than that of an NPP should not be a determinant or a driver of the complexity of rigorousness of the DGR REGDOCs - this is not a competition between the two types of facilities</p> <p>- It is interesting that industry draws the parallel between SMR regulations being “too stringent” and now regulatory requirements for a DGR being “too stringent”; both are novel, first of a kind operations with significant technical uncertainty, the projects are largely conceptual and have no operating experience to draw from; for these reasons, SMRs and DGRs require a high level of scrutiny and detailed and careful evaluations; we strongly disagree with industry’s position that DGRs do not require stringent regulation delivered through a clear and detailed regulatory regime which takes a defence-in-depth approach and insures that the various licensing stages have sufficient redundancy and overlap to avoid gaps and omissions in the review and licensing system</p>	<p>clarify the scope, and address other comments, section 1.2 was revised to reflect the types of facilities that the REGDOC is not intended to apply to, including surface facilities and other ancillary facilities associated with a DGR, such as packaging plants, storage facilities, and water treatment plants or disposal facility types other than DGR facilities.</p>
28.	CNL, Bruce Power, NB Power, NWMO, OPG	0 General	<p><i>Clarification:</i> Several sections request nuclear-specific information (e.g., sources) without a clear path on how/where to obtain information.</p> <p><i>Proposed change:</i> Consult with NRCan on the division of responsibilities and possible contacts to support the application.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- We agree with industry that the lack of knowledge about future sources and pathways for emissions and releases is highly problematic; however, the onus is on the license applicant to demonstrate that they have sound knowledge of their project, and its effects, including nuclear releases and other nuclear-specific information at all project</p>	<p>Licence applicants are encouraged to engage early with CNSC for clarification of specific topics, as needed.</p> <p>It remains the applicant’s responsibility to demonstrate how they are addressing CNSC requirements and guidance in their application documentation. No change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
					stages, including those in the far future	
30.	CNL, Bruce Power, NB Power, NWMO, OPG	0 General	<p><i>Clarification:</i> Reference to CSA N292.7 does not include the year of publication, while other referenced CSA standards include.</p> <p><i>Proposed change:</i> Change “CSA N292.7” to “<u>CSA N292.7-22</u>” throughout the document including the appendices.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As per above, REGDOCs should set out their requirements as a stand-alone document, and not depend on by-reference-only inclusions	For standards that include the year of publication in their nomenclature, this date should only be referenced in the Reference section (or appendices), not the body of the REGDOC. All mentions of CSA documents and other standards have been revised accordingly.
31.	CNL, Bruce Power, NB Power, NWMO, OPG	1.1, 2 nd paragraph	<p>MAJOR: The DGR facility is defined as “facility where radioactive waste is placed in a deep, stable, geological formation (usually several hundred metres or more below the surface). The facility is engineered to isolate and contain radioactive waste to provide the long-term isolation of nuclear substances from the biosphere. The facility is engineered to isolate and contain radioactive waste to provide the long-term isolation of nuclear substances from the biosphere.”</p> <p>This definition reflects that included in the CNSC REGDOC-3.6, Glossary, and is also consistent with the definition of a <i>geological disposal facility</i> in the IAEA Nuclear Safety and Security Glossary (2022 Interim Edition), “A facility for radioactive waste disposal located underground (usually several hundred metres or more below the surface) in a stable geological formation to provide long term isolation of radionuclides from the biosphere.”</p> <p>However, this definition does not include the surface facilities associated with the underground repository, such as the Used Fuel Packaging Plant, and it is unclear whether the draft REGDOC-1.2.3 would apply to these facilities.</p> <p>Impact: Ambiguous requirements will increase the regulatory uncertainty for the proponents and operators of a DGR</p> <p><i>Proposed change:</i> The definition of the DGR facility needs to be clarified to explicitly include the surface facilities</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- We agree that the definition of the DGR facility needs to be clarified to explicitly include the surface facilities associated with the underground repository</p> <p>- Ambiguous requirements will increase uncertainty and reduce public trust in the review and licensing processes</p> <p>- The DGR is a single project, including the underground repository, and surface facilities, including the used fuel packaging plant and other operations</p> <p>- The NWMO’s plans to date are of a conceptual nature, based on a number of “reference cases” which continue to evolve and show significant differences from one generation to the next</p> <p>- The REGDOC must make fully clear that the review and licensing process cannot commence prior to project definition and a project description having been developed, including a description of all functions and operations, including whether certain “optional” operations are to be included in the project (such as a shallow caverns for interim sub-surface storage)</p>	<p>The definition in the document and in the CNSC glossary is consistent with international DGR definitions. The scope of the document identifies that it applies to the site preparation of the DGR facility.</p> <p>It does not include requirements and guidance for surface facilities, and other ancillary facilities associated with a DGR such as a packaging plants, storage facilities, water treatment plants. This is now clarified in the scope, in section 1.2.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			associated with the underground repository, and REGDOC 1.2.2 (once approved) should be referenced.			
32.	CNL, Bruce Power, NB Power, NWMO, OPG	1.1 introduction, para 3	<p><i>Clarification:</i> This document tends to align the start of the post-closure period with the completion of decommissioning and abandonment of the site. This may be logical from a licensing point of view, but unreasonable from technical and management point of view. Once the DGR is closed by sealing the shafts or ramps, the multiple barriers system has been fully completed and the waste has been fully isolated. From this moment, the post-closure safety case takes effect, and the post-closure monitoring would start. Decommissioning of surface facilities is an important licensing step, but does not necessarily affect the post-closure safety or performance. Also, decommissioning of surface facility does not necessarily happen together with the closure of the repository. It may be possible that some surface structures/facilities are kept for post-closure monitoring or institutional control purposes. Aligning post-closure period with licencing stages is not consistent with CSA N292.7.</p> <p><i>Proposed change:</i> Suggested revision:</p> <p><i>“the pre-closure period encompasses site preparation, construction, operation and closure <u>of the underground repository, including the decommissioning of ancillary facilities</u>”</i></p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- The industry statement that ‘Once the DGR is closed by sealing the shafts or ramps, the multiple barriers system has been fully completed and the waste has been fully isolated’ rests on unsupported assumptions</p> <p>- The comment that aligning the start of the post-closure period with the completion of decommissioning and abandonment of the site is “unreasonable from technical and management point of view” is unclear; why is it unreasonable? Is this because achieving post-closure objectives is unmanageable or unachievable?</p> <p>- It’s unclear whether industry’s proposed revision would have the statement under discussion end with “ancillary facilities” or if the remaining text “while the post-closure period follows the closure of a DGR facility” would remain included</p> <p>- The comment from industry that “Decommissioning of surface facilities... <u>does not necessarily affect the post-closure safety or performance</u>” is problematic; some surface facilities - such as the used fuel packaging plant - will be highly radioactive, and will certainly be a significant factor in the post-closure safety performance of the site; this comment illustrates why the regulatory and licensing approach must take a whole-project approach for on-site facilities</p>	<p>The text was revised as follows for clarity:</p> <p>In this document, two key terms are used with respect to a DGR’s lifecycle: the pre-closure period encompasses site preparation, construction, operation and closure, while the post-closure period follows the closure of a DGR facility.</p>
33.	CNL, Bruce Power, NB Power, NWMO, OPG	1.1 , 4 th paragraph, 4 th bullet points	<p><i>Clarification:</i> The document requires information in an application</p> <p>☐ demonstrates that the site is suitable for a facility’s full lifecycle.</p> <p>This requirement may be difficult to meet because:</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch,	<p>- We agree that some of the language throughout the REGDOC is ambiguous and this should be rectified</p> <p>- It should be clarified that the lifecycle of the project includes the</p>	<p>The wording around this bullet has been revised as follows:</p> <ul style="list-style-type: none">• demonstrates that the available site characteristic data support the post-closure safety case.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>a. The word “suitable” is ambiguous and lacks definition.</p> <p>b. It is not very clear if the DGR lifecycle in this document includes the post-closure period that lasts indefinitely. Assuming the lifecycle includes post-closure, it is difficult to fully prove the site will remain good for the full lifecycle due to the large uncertainties associated with the time frame.</p> <p><i>Proposed change:</i> Suggest revising the bullet point as follows:</p> <p><i>“demonstrates that the site <u>characteristics are</u> is <u>consistent with the post-closure safety case suitable for a facility's full lifecycle.</u>”</i></p> <p>The above statement is consistent with the idea that suitability is answered by both site characterization and safety case.</p>	Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>post-closure period; industry should further indicate where they have identified further clarification is correct</p> <p>- We agree with industry that it will be “difficult to fully prove the site will remain good for the full lifecycle due to the large uncertainties associated with the time frame”; this is a fundamental issue with the DGR approach to radioactive waste management; - Uncertainties about long term safety are central to the discussion of DGRs, but the issue cannot be resolved simply through omission of any or all related regulatory requirements</p>	
34.	CNL, Bruce Power, NB Power, NWMO, OPG	1.1 figure on page 7	<p><i>Clarification:</i> Both Section 1.1 and figure on Page 7 acknowledges the DGR lifecycle and differentiation between pre-closure (i.e., site preparation, construction, operation, and closure) from the post-closure period. Under the Nuclear Safety Control Act what licence application will move a DGR from closure or into the post-closure period?</p> <p><i>Proposed change:</i> Provide clarification of the licence type for the post-closure period.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- Industry's confusion around how CNSC is differentiating between pre-closure and post-closure periods has been created by the drafters of REGDOC 1.2.3 omitting the 5th of the CNSC's five licensing steps, i.e. the “Licence to Abandon”, which we presume was removed for messaging or political purposes, i.e. the CNSC wishes to avoid acknowledging that the final license will be to abandon the wastes at the selected site</p> <p>- While we disagree with a licensing approach that includes abandonment, since that is the CSNC approach and industry's intention it should be clearly stated; Figure 7 should be amended to identify the “License to Abandon”</p>	The figure was revised to exclude the post-closure period. See also response to comment #40.
35.	CNL, Bruce Power, NB Power, NWMO, OPG	1.2 Scope	<p><i>Clarification:</i> Is the intention of the document to provide guidance for geologic disposal facilities shallower than several hundred meters below the surface? Shallower geologic disposal is not in the list of exclusions in Section 1.2.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch,	<p>- We agree with industry's comment that this is an important clarification; we had read the document to mean that RD 1.2.3. did not apply to shallow geological repositories and that shallow geologic repositories</p>	The scope (section 1.2) has been updated to clarify that the document is not intended to apply to disposal facility types other than DGR facilities.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<i>Proposed change:</i> Provide clarification in the scope.	Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	were included in “apply to surface and <u>near-surface</u> waste management facilities” - Additionally, we assume that, consistent with international practice, these shallow / near surface facilities would be for storage, not disposal	
36.	Athabasca Chipewyan First Nation	0 REGDOC-3.2.2 Section Appendix C	<p>Appendix C of REGDOC-3.2.2. outlines the qualification of current practice: Canadian Nuclear Safety Commission commitment to aboriginal consultation. Appendix C also outlines the CNSC’s approach to Aboriginal consultation with generally practices that enable Indigenous communities to engage in license applications. One aspect that is missing from this document and the REGDOC-1.2.3. that ACFN sees as valuable to include is the recognition of Indigenous knowledge to inform the licencing process. Indigenous knowledge is valuable equal to that of scientific knowledge where both sets of knowledge inform and have potential to deepen understanding of potential impacts and improve outcomes from DGR site preparation.</p> <p><i>Proposed change:</i> ACFN recommends Indigenous knowledge be included as a requirement of knowledge when preparing a site for a DGR.</p>			<p>The CNSC acknowledges the importance of working with Indigenous Nations and communities to consider and reflect Indigenous knowledge alongside regulatory information in its assessments and regulatory processes. Indigenous ways of knowing and the Indigenous cultural context enhance the CNSC’s understanding of the potential impacts of nuclear projects. CNSC’s current standards for working with Indigenous knowledge are established in the CNSC’s Indigenous Knowledge Policy Framework.</p> <p>To further clarify the importance of Indigenous Knowledge, the following was added to the fourth paragraph in section 3.16:</p> <p>In addition, sections 3.2 and 5 of REGDOC-1.2.1, <i>Guidance on Deep Geological Repository Site Characterization</i>, identify considerations related to Indigenous knowledge and land use.</p> <p>The CNSC is currently assessing potential improvements to REGDOC-3.2.2, <i>Indigenous Engagement</i>, which includes adding further guidance related to Indigenous Knowledge.</p>
37.	CNL, Bruce Power, NB Power, NWMO, OPG	1.3 Relevant legislation	<p>MAJOR: Since the Impact Assessment Act (IAA) clearly links to the NSCA and CNSC - should the IAA not be cited in the relevant legislation?</p> <p>Impact: Significant costs and complexities associated with the broad range of regulations cited in this draft are likely to deter potential applicants.</p> <p><i>Proposed change:</i> Consider an IAA reference as well as Environmental Assessment regulations and provincial environmental requirements.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- Exactly how many potential applicants does the industry anticipate there being? Coupled with their remarks about making “the business case”, the industry comments support the rising concern about the potential for multiple for-profit waste facilities, including for imported wastes.</p> <p>- Given that the last paragraph in the immediately previous section clearly links the Impact Assessment Act to the review steps for a DGR, industry’s</p>	<p>The following text has been added to Section 1.3 - Relevant legislation:</p> <p>The CNSC also considers pertinent legislation from other government departments, such as:</p> <ul style="list-style-type: none">• <i>Impact Assessment Act</i>• <i>United Nations Declaration on the Rights of Indigenous Peoples Act</i>• <i>Canadian Environmental Protection Act, 1999</i>• <i>Species at Risk Act</i>• <i>Migratory Birds Convention Act, 1994</i>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			Furthermore, consider a clear distinction in CNSC oversight regarding nuclear and environmental aspects and those under other federal/provincial jurisdictions.		suggestion to add the same reference in section 1.3 would create an unnecessary redundancy	
38.	CNL, Bruce Power, NB Power, NWMO, OPG	1.3 Relevant legislation	<p><i>Clarification:</i> The list is confusing; for an example with regards to Class I Nuclear Facilities Regulations:</p> <ul style="list-style-type: none"> • <i>section 3</i> • <i>subsections 14(1), (2)</i> • <i>paragraphs 3(a), (b), (d), (d.1), (e), (f), (g), (h), (i) and (k), 4(a), (b), (c), (d) and (e)</i> <p>Does bullet #3 “paragraphs 3(a), (b)...” the same section 3 listed in bullet #1? However, a few items have been removed from the list, like. 3(c).</p> <p><i>Proposed change:</i> Simplify the list and consider adding an Appendix, similar to draft RegDoc-1.2.2, October 2021.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<ul style="list-style-type: none"> - We agree that clearly identifying which section the referenced subsections are a subsection of could be helpful - We agree that clearly identifying which section or subsection the referenced paragraphs are found in could be helpful - We agree that adding further detail in an Appendix would be a reasonable approach, including a description of the rationale and the overall objective of including them - We do not agree that the section should be wholly moved to an Appendix 	<p>Subsections 14(1), (2) were removed since they don't have any bearing on site preparation.</p> <p>Section 1.3 Relevant legislation on REGDOC-1.2.3 has been modified to read as follows:</p> <p><i>Class I Nuclear Facilities Regulations</i> (CINFR):</p> <ul style="list-style-type: none"> • sections 3, 4
39.	CNL, Bruce Power, NB Power, NWMO, OPG	2, Figure	<p><i>Clarification:</i> The first row in the figure shows the “Lifecycle” of a DGR and includes “post institutional control” as a lifecycle stage. The definition of lifecycle in the latest version of REGDOC-3.6 is “<i>The various stages of a nuclear facility's lifespan, including site selection, site preparation, construction, operation, decommissioning and abandonment.</i>” This definition does not include the post institutional control which is post abandonment. The figure seems inconsistent with the REGDOC-3.6 definition.</p> <p><i>Proposed change:</i> Revise the figure to shade the “Post institutional control” in a different way and add a note to indicate that post institutional control is not considered a lifecycle stage per nuclear regulations.</p> <p>Alternatively, keep the figure as is and add a revised definition of lifecycle stages to the document, which includes the post institutional control as a lifecycle stage.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<ul style="list-style-type: none"> - Industry's confusion around how CNSC is differentiating between pre-closure and post-closure periods has been created by the drafters of REGDOC 1.2.3 omitting the 5th of the CNSC's five licensing steps, i.e. the “Licence to Abandon”, which we presume was removed for messaging or political purposes, i.e. the CNSC wishes to dodge acknowledging that the final license will be to abandon the wastes at the selected site - While we disagree with a licensing approach that includes abandonment, since that is the CSNC approach and industry's intention it should be clearly stated; Figure 7 should be amended to identify the “License to Abandon” 	<p>Note that abandonment would include ‘post institutional control’. This is clarified in REGDOC-3.5.1 <i>Licensing process for Class I Nuclear Facilities and Uranium Mines and Mills</i> which states: The Commission may issue a licence to abandon or an exemption from licensing which will end the licensee's responsibility for the site and then transfer responsibility for regulatory oversight or institutional control from the CNSC to the province or territory, if applicable”.</p> <p>See also response to comment #40.</p>
40.	CNL, Bruce Power, NB Power, NWMO, OPG	2, Figure	<p><i>Clarification:</i> The figure indicates the post-closure period starts after the site is released from CNSC control. However, Figure A.1 in CSA N292.7 indicates that post-closure period starts when the DGR is closed, while a post-</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch,	<ul style="list-style-type: none"> - Excellent questions. - This is a significant issue. - We propose that the CNSC prepare a discussion paper specifically on this topic and include in that discussion 	The figure has been revised for clarity, focussing on the CNSC's licensing phases and associated lifecycle activities.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>closure monitoring period is still under the CNSC control. There are two questions:</p> <ul style="list-style-type: none">What is the starting point of the post-closure period (closure of the DGR or release from CNSC control)?Does the CNSC control cover the post-closure monitoring activities and these activities are considered part of "Closure" and "License to decommission"? <p><i>Proposed change:</i> Seeking clarity for the starting point of the post-closure period and licensing coverage on post-closure monitoring in the document.</p>	<p>Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North</p>	<p>paper a detailed description of how other jurisdictions have made this determination and an analysis of the strengths and weaknesses of different options considered.</p> <p>- The issue is further complicated by the potentially very long time- frame for operations, and the current "adaptive repository layout" approach being described by the NWMO and the attendant potential for closure being carried out on a panel-by-panel basis; under this conceptual approach some sections of the repository could be in a "post closure" mode while others are in construction mode.</p>	
41.	CNL, Bruce Power, NB Power, NWMO, OPG	2, Figure	<p>The figure shows "indigenous and public engagement", "site evaluation", "site characterization" and "post-closure safety case" all extend beyond release of CNSC control. CSA N292.7 Figure A.1 shows these activities all stops before release from CNSC control.</p> <p>In addition, the last bullet in Section 1.1 requires the proponent "demonstrates that the site is suitable for a facility's full lifecycle."</p> <p>It is unclear what activities would be required to be maintained during institutional controls with respect to site evaluation, site characterization and post-closure safety case, and under what jurisdiction.</p> <p><i>Proposed change:</i> Seeking clarity on the inconsistency with the CSA N292.7.</p> <p>If these activities are required to continue beyond release from CNSC control, please answer the following questions:</p> <ul style="list-style-type: none">Who is responsible to regulate these activities?How should the outcomes from these activities be used and for what purpose? <p>Suggest either deleting 'site evaluation', 'site characterization' and 'post-closure safety case' activities from the graphic or adding clarification text with respect to</p>	<p>Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North</p>	<p>- Industry comments that the unnumbered figure at the top of page 7 shows "indigenous and public engagement", "site evaluation", "site characterization" and "post-closure safety case" all extend beyond release of CNSC control" and asks who is responsible for regulating these activities, when in fact the figure shows these activities do not continue beyond institutional control (i.e. the CNSC license to abandon) and the question is more problematic: how is post-closure monitoring to be carried out, how are the public and Indigenous peoples to be engaged, what will the response be to unexpected monitoring results (assuming that effective monitoring can and will be undertaken and results made known)</p> <p>- Industry's question about how the outcome of monitoring and engagement activities will be used is very pertinent, but their proposed resolution that these activities be simply deleted is completely unacceptable</p>	<p>See response to comment #40.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			the regulatory requirements for these activities after the closure of the DGR facility.			
42.	CNL, Bruce Power, NB Power, NWMO, OPG	2, Figure	<p><i>Clarification:</i> The figure shows “site characterization” in parallel with “site evaluation”. CSA N292.7 Section 6 indicates that site characterization is a subset of site evaluation, which is inconsistent.</p> <p><i>Proposed change:</i> Seeking clarity on the inconsistency with the CSA N292.7 on site evaluation and site characterization.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- This request for clarification illustrates the problematic approach adopted by CNSC of referencing industry standards in Regulatory Documents, for which the public has limited or no access and which are - as noted by industry - often contradictory.</p> <p>- The resolution to this comment should be to include sufficient requirements in the REGDOC so that it is a stand-alone document, and cease relying on the industry-generated CSA standards.</p>	The figure has been revised to reflect site evaluation and site characterization in one line. Site characterization is described separately in the text to reflect its specific importance for DGR projects, in particular, and as an important aspect of site evaluation
43.	CNL, Bruce Power, NB Power, NWMO, OPxG	2, Figure	<p><i>Clarification:</i> The design phase is shown to be completed at the end of construction; what happens with construction that continues in parallel with the Operation phase? Also, design will continue in Operations to support improvements and optimization.</p> <p><i>Proposed change:</i> Continue the Design Line through Operations</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- The question posed by industry in this comment is unclear.</p> <p>- The industry suggestion that the Design Line be continued through operations could open the door to a proponent filing an incomplete application with design relegated to a “to be determined” status</p> <p>- A license application must include a complete design as part of the project description which will be required to produce the required pre-and-post closure safety assessments; given the NWMO’s stated intention to rely on the construction period (post license</p>	The text has been updated to reflect that activities shown reflect typical activities for each stage. The design period as shown is consistent with CSA N292.7. While aspects related to design improvement could be expected to continue during operation - they would be managed through a design change control process over subsequent decades of active operation.

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
					to construct) to carry out site characterization activities to obtain information necessary to support their safety case (pre and post closure) this appears to be an intractable contradiction. - CNSC's response to this comment from industry must be clear in the requirement for a full set of safety reports (pre and post-closure) to be filed as part of the site preparation license (and license to construct application, and license to operate application).	
47.	Dr. Sandy Greer	3.9 Environmental protection	<p>Another observation is the tendency to be too generic in this draft guide, and not identify DGR shaft per se nor the above-ground encapsulation facility, the latter where all used fuel bundles transported to the proposed site must be repackaged before being lowered into the DGR shaft to store in deep tunnels.</p> <p>The fact is, not just the deep shaft and horizontal tunneling is experimental, but the design of the above-ground encapsulation facility is conceptual, regardless of the Finnish DGR activities. In Finland, no operating licence has yet been received, let alone any part of the shaft or above-ground facility operating beyond conceptual designs.</p> <p>What bothers me as well is the outcome of designating “the exclusion zone,” after which it is logical for understandable national security and related reasons that no one outside of officially designated personnel would be allowed inside the zone. But - and this is a big “BUT” - is the NWMO being mandated to do not just baseline monitoring of any water pathways, i.e. the Teeswater River, and nearby sediments <i>within the zone</i> yet, also important, to continue doing regular monitoring through all years of construction and operation, to be transparent about the various ways that radionuclides and non-radioactive materials could be accumulating in the environment throughout the zone? (I recall very powerfully how Environment Canada during the two public hearings about the OPG DGR were not at all satisfied with what OPG and NWMO consultants stated in regard to the settling pond design.)</p>			<p>The CNSC's environmental protection requirements are contained in REGDOC-2.9.1 and the referenced CSA standards, while for environmental monitoring, the requirements are in CSA N288.4. For pre-licensing baseline monitoring, the applicant is required to document and demonstrate a systematic process for gathering baseline data. The baseline data must consider valued components and contaminants of potential concern associated with historical, present or proposed future use of the site. More details on the requirements and guidance are in Appendix C of REGDOC-2.9.1.</p> <p>No change was made in response to this comment.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
48.	Dr. Sandy Greer	3.11 Waste management	<p>The first sentence within this section reads: “For site preparation of a DGR facility, activities should not involve handling radioactive materials, nor the generation of any radioactive wastes.”</p> <p>That requirement is reasonable, given the assumption that it refers only to the used fuel bundles which are planned for transportation to the selected DGR site, once the site is operational and, at that time, repackaging will be done. However, again, I point out the importance that baseline monitoring should be done, even prior to any site preparation but absolutely mandatory when it begins. According to what I hear from concerned citizens in the Municipality of South Bruce, the NWMO refuses to do specific types of monitoring prior to official site selection. Therefore, the possibility of background radioactive materials in the waterways or bedrock apparently are not being addressed. As for well water testing, the lack of trust by a number of local residents in regard to the NWMO has caused them to refuse to participate in a well water testing programme funded by the NWMO. A few citizens had discussed instead paying for their own independent water testing but I am not privy to the outcomes at this time. Meanwhile, I feel morally obliged to communicate what I discovered in reading at least three annual water reports where I currently live in Blyth, immediately south of my former home in South Bruce. The strontium levels in all Blyth wells are six to seven times higher than the maximum regulatory limit in Ontario of 7,000 ug/L. What was suggested to me is that the strontium could be in the bedrock, in other words, the strontium is perceived as part of natural background radioactive material in the terrain (as distinct from Strontium 90 from the nuclear power plant). Nevertheless, my research indicates that any type of strontium has dangers for babies and young children, and I will be making a noise to get better attention paid to it by the Municipality of North Huron.</p> <p>I mention the above as my rationale for emphasizing the importance of getting baseline monitoring done, because the hazardous materials must recognize what already exists in the natural terrain including water pathways. My own view is that the NWMO ought to have been studying the terrain in South Bruce for such natural background radioactive materials as well as doing its borehole drilling.</p>			<p>Requirements for baseline site characterization and environmental monitoring are specified in section 3.9 - Environmental Protection. Site characterization, as part of the waste system description and as requirements for disposal projects, is described in section 2.3, which provides specific references to CNSC REGDOCs and CSA standard N292.7.</p> <p>The following section was added to improve clarity:</p> <p>Monitoring and surveillance</p> <p>The applicant must provide a plan for monitoring the effects of site preparation activities on the environment as part of the application for a licence to prepare site (section 3.9).</p> <p>The expectations for a monitoring and surveillance program for a DGR facility are provided in CSA N292.7 [2] and in REGDOC-2.11.1, Waste Management, Volume I [5].</p> <p>Also, see response to comment #47.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
50.	Dr. Sandy Greer	3.4 Safety analysis	<p>Please know that I have read a few of the many added documents which are identified as further regulatory material which pertains to Site Preparation. For example, I scrolled through the numerous “external hazards” in Appendix C of REGDOC-2.4.4.</p> <p>I find it very perplexing how the CNSC identifies very clearly the numerous examples of what could go wrong, such as examples of “postulated initiating events (PIEs), under C.1 on HTML pages 21 and 22. This information accompanies what you write on PDF page 14 within the 3.4 Safety Analysis:</p> <p><i>“considerations for both design-basis events and beyond-design basis events for the operational phase, with a focus on the concept of cliff-edge effects when analyzing external hazards, where a small change of conditions may lead to a catastrophic increase in the severity of consequences</i> [my bold].”</p> <p>You ask for an “<i>analysis of external hazards at the site evaluation stage, to confirm that the facility will withstand events as described.</i>” Seriously? How is doing so humanly possible or have any credibility? The above example numbers among other requirements which read as intellectual conceptual exercises which cannot be verifiable in real time and real space on the ground in the real world.</p>			<p>Applications are expected to demonstrate that they can meet all requirements outlined in any published REGDOC before the CNSC can proceed with a licensing decision.</p> <p>See also response to comment #90.</p>
51.	Mississaugas of Scugog Island First Nation (MSIFN)	3.9 Environmental protection	<p><u>Section 3.9</u> of the REGDOC discusses what an applicant must do for environmental protection. It states that “for site preparation, environmental monitoring consists of defining baseline characteristics and monitoring the effects of site preparation activities on the environment”.</p> <p><i>Proposed change:</i> Environmental monitoring should first begin with predicting the effects of site preparation and mitigating certain impacts before they happen, then monitoring for unanticipated impacts. Most impacts of site preparation should be clear before any work begins, preemptive measures should be taken to protect the environment and substantially mitigate impacts, not just monitoring effects.</p>			<p>The applicant will also be required to meet the requirements of the <i>Impact Assessment Act</i>, which will proceed as commenter indicates. See the response to comment #97.</p>
53.	Mississaugas of Scugog Island First	3.10 Emergency and Fire	<p><u>Section 3.10</u> of the REGDOC states that an application must describe an emergency preparedness program and outline hazards that exist on the licensed site. It states “Although hazards of a malevolent nature are not described in this</p>			<p>Emergency planning is performed to identify hazards and establish the programs to respond to them if they arise. To align with section 2.1 of REGDOC-2.10.1, <i>Nuclear</i></p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
	Nation (MSIFN)		<p>section of the license application, the applicant should consider the emergency response to those hazards. Note that the effects of such hazards are likely to be similar to those of conventional accidents and malfunctions”.</p> <p><i>Proposed change:</i> We recommend that this section include mandatory reference to hazards of a malevolent nature, and that the REGDOC use stronger language than “the applicant should consider the emergency response to these hazards”. It should be required that all applicants consider possible intentional threats to a future DGR including the potential for terrorist attacks and sabotage. There is at least one known plan of a group of men considering terrorist/sabotage activities at nuclear sites in Ontario, including considerations for planting explosives, including crude nuclear explosives, and one of the group was training at a flight school whose flight paths cross the Pickering Nuclear Generating Station (https://www.nytimes.com/2003/08/24/world/canada-links-arrest-of-19-pakistanis-to-possible-terrorism-ties.html). The CNSC must fully and transparently consider such threats and appropriate measures to protect against such threats as a future DGR may well be a target for such activity. Nuclear safety is of paramount importance to MSIFN. Almost every portion of the nuclear fuel lifecycle exists in our territory except for uranium mining. A safe and sustainable future for our community is of highest importance, as we have been, and will continue to be impacted by nuclear activities occurring since colonization. The responsibility of the CNSC to keep our community, and other Indigenous communities, safe must not be taken lightly</p>			<p><i>Emergency Preparedness and Response</i>, the text was revised (change from ‘should’ to ‘must’):</p> <p>Although hazards of a malevolent nature are not described in this section of the licence application, the applicant must consider the emergency response to those hazards.</p>
54.	Mississaugas of Scugog Island First Nation (MSIFN)	3.16 Indigenous and public consultation	<p>Section 3.16 of the REGDOC states “The CNSC, as an agent of the Crown, is responsible for fulfilling Canada's legal duty to consult and, where appropriate, accommodate Indigenous peoples, when the CNSC’s decisions may have adverse effects on potential or established Indigenous and/or treaty rights.”</p> <p>As mentioned in previous comments, it is very likely that the CNSC’s decision regarding DGR siting will have adverse effects on potential or established Indigenous and/or treaty rights. As the project will involve digging hundreds</p>			<p>The CNSC is committed to supporting the Government of Canada’s whole-of-government approach to implementing the United Nations Declaration on the Rights of Indigenous Peoples Act (UNDA).</p> <p>While the CNSC’s current approach to Indigenous consultation and engagement is mindful of and consistent with the principles articulated in the UN Declaration, the CNSC is committed to ensuring that our approach aligns with any new guidelines and best practices that emerge</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>of metres below ground, First Nations' subsurface rights should be acknowledged in whichever geographic location is selected. We recommend the wording in this section be strengthened. Accommodations to impacted Indigenous peoples should not only be where appropriate as determined by the CNSC/the Crown. First Nations should be given the opportunity to state concerns and adverse impacts to their rights, including subsurface rights, without discrimination, and the regulator should be required to accommodate.</p> <p>The same section states "Conducting engagement activities with the public and Indigenous peoples early in the project development process, including site evaluation, is expected to result in more effective and efficient consultation practices, strengthen relationships and assist the Crown in meeting its obligations regarding any potential legal duty to consult and accommodate, as well as reduce the risk of delays in the regulatory review process."</p> <p>While it is appreciated that consultation will take place early in the project development process, the wording in this section is not inclusive of upholding the rights of Indigenous peoples. The benefits of early engagement should not only be considered in relation to the CNSC/the Crown, but in ensuring that the rights of Indigenous peoples are upheld and not further eroded. Consultation allows Indigenous peoples to fully understand the impacts of a project, and it should not only be looked at from a regulatory standpoint or as having the potential to delay project timelines.</p> <p><i>Proposed change:</i> CNSC is urged to obtain consent from MSIFN prior to licensing the DGR. On June 19th the Canadian Senate voted to pass Bill C-15 to implement UNDRIP into Canadian Law. This Bill has significant implications for government and resource development proponents as UNDRIP requires states to obtain Free Prior and Informed Consent (FPIC) in their consultation with Indigenous Communities. Article 32(2) of UNDRIP states that the Crown shall consult and cooperate with Indigenous Peoples to obtain FPIC prior to approval of any project affecting our lands and territories particularly in connection with development of resources. The measures identified in UNDRIP are a minimum standard for well-being and survival of Indigenous communities and inform processes of consultation. Consent is a theme which has</p>			<p>as the government proceeds with implementation of the Act.</p> <p>The CNSC is committed to keeping MSIFN and other Indigenous Nations and communities informed as implementation and policy discussions evolve regarding UNDA action plan measures that relate to the CNSC's mandate.</p> <p>The CNSC is committed to a meaningful and thorough consultation process with any impacted Indigenous Nations and communities in relation to any DGR project proposal and any proponent proposing a DGR facility must follow the requirements of REGDOC 3.2.2, <i>Indigenous Engagement</i>, as referenced in REGDOC 1.2.3.</p> <p>No change was made in response to this comment.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			permeated through Canadian history. The 1997 Delgamuukw vs. British Columbia Decision stated that in some cases the Duty to Consult may require obtaining consent. Other industries have prioritized FPIC including the Mining Association of Canada which has established a Sustainable Mining Protocol which identifies a good practice to obtain FPIC for new projects. CNSC should follow with industry standards and Canadian law to obtain consent prior to licensing the site preparation for such work.			
56.	Northwatch	3 Regulatory requirement and guidance	this section sets out that for each Safety Control Area (SCA) the applicant <u>should</u> also provide information to address the associated guidance, relative to the design of the proposed DGR facility; as set out in the preface to the document, the word “Should” is used to express guidance or that which is advised”; Northwatch strongly holds the view that each safety control area <u>must</u> be addressed, and that the term “DGR facility” must throughout this regulatory document be taken as referring to the DGR itself and all associated surface facilities, including but not limited to the used fuel packaging plant, all waste management and waste treatment facilities and functions including for liquid wastes, for exhaust air, the ventilation system, and all water management systems such as holding and retention ponds and other water retaining structures			<p>Requirements, as expressed by must or shall, identify regulatory obligations, as set out in a Canadian act or regulation. Guidance, as expressed by should, helps an applicant understand the ways they can meet those requirements, although they may not always apply. CNSC staff verified the shall/should terminology in this licence application guide, with the goal of being consistent with the requirements and guidance as set out in REGDOCs and standards referred to.</p> <p>CNSC staff evaluate projects against both requirements and guidance, meaning both are considered during regulatory reviews. No change was made.</p>
57.	Northwatch	3 Regulatory requirement and guidance	the subsection on Physical design should more clearly state that the references to what the application must include apply to the deep geological repository and to the supporting / surface facilities, including all associated surface facilities, including but not limited to the used fuel packaging plant, all waste management and waste treatment facilities and functions including for liquid wastes, for exhaust air, the ventilation system, and all water management systems such as holding and retention ponds and other water retaining structures			See response to comment #31.
58.	Northwatch	3 Regulatory requirement and guidance	the subsection on operating performance should stipulate that the applicant will fully disclose their characterization of the risks to health, safety and the environment that may be encountered by workers and the public and associated mitigation measures and strategies			Section 3.16 Indigenous and public engagement of REGDOC-1.2.3 points applicants to REGDOC-3.2.1, <i>Public Information and Disclosure</i> , which requires applicants to establish a public disclosure protocol to address their target audiences' information interests in relation to the licensed activities. REGDOC-1.2.3 outlines the information

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
						that an applicant will have to provide to the CNSC, which will be summarized and made available to the public in a Commission Member Document, as part of the licensing process. No change was made in response to this comment.
59.	Northwatch	3 Regulatory requirement and guidance	the subsection on safety analysis should stipulate that the applicant will fully disclose the hazard analysis, analysis of the potential and consequence of design-basis events and beyond-design-basis events including those with the potential for a catastrophic increase in the severity of consequences, and the post-closure safety assessment and all supporting information, documentation and analysis; as per previous comments, this documentation must be added to the public record and made available to the public for review, scrutiny and considering during various licencing, review, and permitting processes and for the more general purpose of public oversight and community information			See response to comment #58
60.	Northwatch	3 Regulatory requirement and guidance	the subsection on Indigenous and public engagement must stipulate that the applicant's public information and disclosure program must include stipulation that each of the areas of documentation identified in previous comments as being documentation to be added to the public record and made available to the public for review, scrutiny and considering during various licencing, review, and permitting processes and for the more general purpose of public oversight and community information are added as per Northwatch's comments			See response to comment #58
61.	Northwatch	3 Regulatory requirement and guidance	the subsection on Environmental protection must be amended to include requirements that the applicant must prepare and include a full inventory of natural / ecological / environmental and social values (including recreational, land uses) in the study area and host watersheds and that these inventories be prepared prior to surface or subsurface disturbance at the site, and that a full plan for the remediation of all site disturbance be prepared with financial assurances be posted to ensure that the remediation activities are fully carried out and the monitored for effectiveness			The environmental protection requirements listed in this comment are contained in REGDOC-2.9.1. For example, Appendix A provides requirements to conduct a specific environmental assessment. As part of this assessment, the proponent has to identify natural, ecological, environmental and social values in the study area. Furthermore, Appendix B provides guidance to develop a characterization of the baseline environment before there are disturbances at the site. No change was made.
62.	Northwatch	3 Regulatory requirement and guidance	the subsection on Physical design sets out that "The applicant must also provide information on the proposed exclusion zone, including size and boundary, and on the proposed emergency planning regions"; Northwatch is			The applicant for a DGR licence must submit a safety case to the CNSC. This safety case may or may not recommend an exclusion zone. CNSC experts will then review the

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			strongly of the view that rather than the applicant selecting the size and boundary of the exclusion zone, direction for the establishment of the exclusion zone should be set out in regulation, based on best international practice, sound science and the precautionary principle			safety case and make their recommendations to the Commission No change was made.
65.	Northwatch	3 Regulatory requirement and guidance	the subsection on management systems identifies that the applicant's management system <u>should</u> account for numerous items including data control, verification and validation, data format, traceability of data, configuration control, including data, for environmental, meteorological, geological, geophysical, survey, hydrological, biological factors, measuring and test equipment, use and control of computer modelling, field and laboratory work control, calculations and analyses, measures to ensure that the results of the site characterization are accurate, complete, reproducible, traceable and verifiable, reporting the results of all site evaluation work, laboratory tests and geotechnical analyses and evaluations, and changes to prescribed information; as set out in the preface to the document, the word "Should" is used to express guidance or that which is advised"; Northwatch strongly holds the view that the applicant's management system <u>must</u> account for these items			<p>Requirements, as expressed by must or shall, identify regulatory obligations, as set out in a Canadian act or regulation. Guidance, as expressed by should, helps an applicant understand the ways they can meet those requirements, although they may not always apply. It is up to the applicant to show the CNSC how they have met all regulatory requirements.</p> <p>Section 3.1 of REGDOC 1.2.3 specifies that the applicant's management system must be in accordance with CSA N286-12, <i>Management system requirements for nuclear facilities</i>. While developing N286-12, CSA has applied the use of should and shall in light of the CNSC's legal authorities.</p>
66.	Northwatch	3 Regulatory requirement and guidance	the subsection on management systems identifies that the applicant's management system should account for numerous items, as listed immediately above; in addition to amending this from a "should" to a "must", this subsection should include clear requirements that these data items and data areas and associated records and documentation records will be added to the public record and made available to the public for review, scrutiny and considering during various licencing, review, and permitting processes and for the more general purpose of public oversight and community information			See the response to comment #65.
67.	Northwatch	3 Regulatory requirement and guidance	again, the persistent use of "should" instead of "must" throughout this section is a matter of concern; case in point: the applicant <u>must</u> involve workers with extensive experience, knowledge and appropriate technical and engineering experience who can analyses and synthesize data from multiple disciplines to provide correct information about the site's <u>current</u> state and reliable and science-based estimates of the site's <u>future</u> state when			See the response to comment #65.

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			establishing management system parameters related to site evaluation; similarly, evaluations <u>must</u> be reviewed and verified by individuals or groups that are independent of those who did the work and the criteria for any review or verification activity should be documented (note that this should be changed to <u>must</u> rather than <u>should</u>); as per previous comments, this documentation must be added to the public record and made available to the public for review, scrutiny and considering during various licencing, review, and permitting processes and for the more general purpose of public oversight and community information			
68.	Athabasca Chipewyan First Nation	2.2 Site characterization	<p>The REGDOC-1.2.3 states that the applicant must provide a description of planned activities and provide data about the site characteristics for licence to prepare a site for a DGR facility. The site characterization demonstrates how radioactive waste will be contained and isolate from the environment over the timeframe and supported by the post-closure safety case.</p> <p><i>Proposed change:</i> ACFN recommends that the standard to which radioactive waste will be contained and isolated from the environment takes into the account Indigenous peoples use of the environment to ensuring the safety of Indigenous people for future generations. ACFN is concerned that Indigenous uses of the land and resources (e.g., drinking water from the rivers, streams, lakes etc. and consumption of animals and plants) are not factored into the standards of how radioactive waste is contained and isolated from the environment.</p>	Alexandra Franche	I will even go further and push for amendments to have lower tritium levels allowed in the current water regulations as well as other toxic radionuclide components. It's astounding how the limit is permissive in Canada compared to other countries	See response to comment #36.
69.	Athabasca Chipewyan First Nation	2.3 Post-closure safety case	<p>REGDOC-1.2.3 states that the applicant must provide a post-closure safety case in support of a license to prepare site application for the DGR facility. Requirements and guidance for developing a post-closure safety case are provided by REGDOC-2.11.1 and indicate that “the development of the safety case enables ongoing engagement with the public and Indigenous groups and the incorporation of stakeholder feedback. At closure of the disposal facility, the safety case will contain information that future generations may require (e.g., institutional control plans, long-term monitoring plan)”</p> <p><i>Proposed change:</i> ACFN acknowledges that the safety case enables ongoing engagement with the public and</p>			<p>As noted in section 3.1.1 <i>Waste management</i>, the applicant must develop a preliminary decommissioning plan for which they are required to develop an Indigenous engagement plan [REGDOC-2.11.2 section 6.1.1].</p> <p>Through this process Indigenous nations and communities can identify activities such as those noted in the comment that the applicant should consider during institutional control period. No change was made.</p>

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			Indigenous groups and the incorporation of feedback, and that it contains information that future generations may require (e.g., plans). ACFN notes that post- closure safety case needs to include the interests and use of future generations of Indigenous peoples and recommends that the post closure safety case explicitly support Indigenous multigenerational use that will adequately protect Indigenous people throughout the entire lifecycle (site preparation, construction, operation, and decommissioning). This including Indigenous input on institutional control plans and Indigenous-led long-term monitoring. Indigenous peoples use of the land varies from non-Indigenous peoples (public), including but not exclusive to the consumption of animals, plants and water on the land. These uses are important to accommodate when demonstrating a facility will adequately protect Indigenous people and the environment.			
70.	Athabasca Chipewyan First Nation	3.3 Operating performance	<p>REGDOC-1.2.3 states that “risks to the health and safety of the public in site preparation include:</p> <ul style="list-style-type: none">❑ noise hazards from blasting and operation of heavy machinery❑ chemical hazards from the handling of fuels, lubricants and other conventional chemicals used in the construction equipment❑ mechanical hazards from excavation, earth movement and road building❑ electrical hazards from installation of construction infrastructure❑ dust from overburden and rock removal and movement❑ ground vibration and flying rock hazards from blasting <p>ACFN acknowledges that these risks to health and safety of the public is an important component to prepare a site for DGR. However, Indigenous peoples use of the land and its resources may differ from the general public and therefore may require tailored measures of risk to the health and safety of Indigenous peoples. This may include measures that take into account Indigenous land use, consumption of animals, plants and water in and downstream from the region.</p> <p><i>Proposed change:</i> ACFN recommends that amendments be made to include not only the risks to the health and safety of the public, but also the risks and health of Indigenous</p>			<p>REGDOC-3.2.2, <i>Indigenous Engagement</i>, as referenced in this REGDOC, applies to applicants and licensees for regulated facilities that could raise the Duty to Consult and Accommodate. Under REGDOC-3.2.2, the applicant is required to engage directly with Indigenous Nations and communities to understand their concerns and potential impacts of the project on their rights, interests and community, including their health and well being. The applicant is required to meaningfully address concerns surrounding the health and safety of Indigenous Peoples including land use, traditional foods, and water.</p> <p>Also, see response to comment #36. No change was made in response to this comment.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			peoples in site preparation. ACFN recommends the applicant work directly with local Indigenous groups to understand their concerns and risks that may arise during site preparation.			
71.	Athabasca Chipewyan First Nation	3.3 Operating performance	<p>Section 3.3 also states the applicant's assessment of risks to the health and safety of workers and the public resulting from the activities encompassed by the license to prepare site should include consideration of accidents and malfunctions that could occur during site preparation activities. When considering accidents and malfunctions, Indigenous peoples' use of the land and resources may require special consideration.</p> <p><i>Proposed change:</i> Similar to the above ACFN recommends that accidents and malfunctions be considered with input from local Indigenous peoples.</p>			See response to comment #70.
72.	Athabasca Chipewyan First Nation	3.5 Physical design	<p>REGDOC-1.2.3 states: “the applicant must also provide information on the proposed exclusion zone, including size and boundary, and on the proposed emergency planning regions”. ACFN recognizes that Indigenous peoples may be using nearby land and resources for consumption or traditional purposes. Information provided regarding proposed exclusion zones, including size and boundary, and proposed emergency planning regions may need to consider Indigenous use of the land and resources.</p> <p><i>Proposed change:</i> ACFN recommends that applicant include input from Indigenous peoples and their use of the land to inform proposed exclusions zone, size and boundary, and proposed emergency planning.</p>			See response to comment #62.
73.	Athabasca Chipewyan First Nation	3.7 Radiation protection	<p>REGDOC states “the application must describe how radiological hazards will be monitored and controlled during any site preparation activities”. ACFN notes that in order to protect Indigenous peoples, monitoring radiological hazards must include monitoring for potential hazards arising from Indigenous use of the land. This may include consumption of animals and plants and water around and downstream of a DGR.</p> <p><i>Proposed change:</i> ACFN recommends protecting Indigenous peoples by monitoring radiological hazards with criteria that accommodates potential hazards arising from Indigenous use of the land. The applicant should work</p>			Applicants are required to gather baseline data for the proposed project, which considers valued components. The applicant is required to describe the criteria used to identify valued components that may be affected by the project. CNSC staff expect the applicant to work with Indigenous communities when identifying the valued components. Furthermore, applicants are required to perform an environmental risk assessment in accordance with CSA N288.6 and REGDOC-2.9.1 to demonstrate that there is no unreasonable risk to the environment and to the public as a result of their proposed activities. Applicants are also required to conduct environmental

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			with local Indigenous communities to identify risks arising from Indigenous use of the land and waters.			monitoring in accordance with CSA N288.5 and REGDOC-2.9.1 to demonstrate that the environment is protected. More information on CNSC staff's requirements and guidance for Indigenous engagement are in REGDOC-3.2.2. No change was made.
74.	Athabasca Chipewyan First Nation	3.9 Environmental protection	REGDOC-1.2.3 outlines that the applicant must include "a comprehensive set of applicable Environmental Protection measures, including an environmental risk assessment, environmental management systems, effluent emissions control and monitoring program, environmental monitoring program, and groundwater protection and monitoring program that meet all requirements applicable to site preparation activities of REGDOC-2.9.1". ACFN acknowledges and commends the following as important components to environmental protection. REGDOC-2.9.1 describes any "licensee should describe the potential effects of the facility or activity on the physical well-being of Indigenous groups and other people resulting from biophysical effects, including the effects of the facility or activity on environmental components and the resulting effects on human health". This includes identifying "any change that the facility or activity is likely to cause on the environment and any effect of any such change on the health and social economic conditions, physical and cultural heritage and on the current use of lands and resource is for traditional purposes by any indigenous group including effects on hunting, trapping, fishing, and gathering." The licensee "should also identify any concerns raised by Indigenous people about the facility or activity in relation to any Indigenous or treaty rights." (REGDOC-2.9.1, 2016).			This comment accurately reflects the intent of REGDOC-1.2.3, which is to ensure that an applicant who wants to prepare a site for a DGR is aware of their obligations with respect to environmental protection and engaging Indigenous communities in their early planning efforts. No change was made in response to this comment.
75.	Athabasca Chipewyan First Nation	3.12 Preliminary decommissioning plan	As part of the application to prepare site, the applicant must demonstrate that the site evaluation process has appropriately considered future decommissioning in the planning for the nuclear facility and has adequately considered end-of-life decommissioning, prepare a preliminary decommissioning plan in accordance with REGDOC-2.11.2. REGDOC-2.11.2 identifies that when determining the appropriate decommissioning strategy, the licensee should make "considerations", including Indigenous engagement. ACFN requests that Indigenous engagement be included as a requirement for determining the appropriate decommissioning strategy. The land that			REGDOC-2.11.2, Decommissioning requires that Indigenous communities be consulted in the preparation for the plan for decommissioning. Selection of the plan is made by the licensee however they must respond to any question proposed by the Indigenous nation. See also response to comment #69

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>the DGR is developed on has likely been used by local Indigenous peoples for generations. Usability and suitability of the land after decommissioning is of high interest to Indigenous peoples ensuring the end use is maximized for future Indigenous peoples.</p> <p><i>Proposed change:</i> ACFN Recommends that Indigenous engagement be included as a requirement for determining the appropriate decommissioning strategy.</p>			
76.	Athabasca Chipewyan First Nation	3.16 Indigenous and public engagement	<p>REGDOC- 1.2.3 outlines the CNSC's obligation for "consultation to avoid, mitigate or offset adverse effects". REGDOC-3.2.2, Indigenous Engagement [13] outlines "requirements and guidance for applicants whose proposed projects may raise the Crown's duty to consult and accommodate". REGDOC-1.2.3 also outlines that engagement activities with the public and Indigenous peoples should be conducted early in the project development process, including site evaluation. Engagement is expected to result in more effective and efficient consultation practices, strengthen relationships and assist the Crown in meeting its obligations regarding any potential legal duty to consult and accommodate, as well as reduce the risk of delays in the regulatory review process. ACFN acknowledges the value of engagement stated in REGDOC- 1.2.3, but suggests including that the engagement improves how Indigenous communities contribute their knowledge and experience on the land toward reducing the potential risks and impacts on Indigenous communities throughout the life cycle of DGR.</p> <p><i>Proposed change:</i> ACFN recommends that the benefits of engagement include the contribution Indigenous knowledge toward reducing potential risks and impacts on Indigenous communities throughout the lifecycle of DGR. Further, ACFN recommends that Indigenous engagement take place throughout the life of the project. Decommission plans should be developed with input from Indigenous communities and made available for them to review.</p>	Alexandra Franche	<p>Prior, full and informed consent must be given to the First Nations and surrounding canadian communities. Water has a way of moving around and spreading around the contaminants of high-level toxic waste that will be buried in the DGR. In Port Hope, a town of 16 000 that had a refinery of radium and uranium, has to be cleaned up of low level toxic nuclear waste in the surface soil and this is costing millions; that is strictly the cost for the environmental damage, as little long-term health studies have been conducted. Imagine how costly and risky that DGR project is. It isn't a guarantee that can be made for First Nations that their land, water and air will be kept intact and their land is sacred to them; they can't just uproot and go live somewhere else. Canada has the world's largest freshwater reserve. Our First Nations are trying to protect it and they have a right to do so and to be given thorough details before the project is underway</p>	See the responses to comments #36 and #70.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
77.	CNL, Bruce Power, NB Power, NWMO, OPG	2.2 Site characterization	<p><i>Clarification:</i> It would be beneficial, if it is not in the referenced documents, to have a Canadian equivalent to Table 1 in IAEA SSG-14 to be included to explain this concept.</p> <p><i>Proposed change:</i> Clearly reference or, if not available, provide a Canadian equivalent to Table 1 in IAEA SSG-14.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- The resolution to this comment should be to include sufficient requirements in the REGDOC so that it is a stand-alone document; if an IAEA SSG is to be relied upon, it should be reproduced or replicated in the REGDOC	<p>The purpose of the licence application guide (LAG) is to provide information to applicants on applying for a site preparation licence for a DGR facility. The LAG maps out the relevant regulatory documents and standards that inform the application process. This is clarified in the revised document.</p> <p>CNSC's regulatory documents that provide requirements and guidance on site characterization were updated in 2021. These updates included ensuring alignment with IAEA documents in general and included consideration of IAEA SSG-14 (published in 2011) in particular.</p> <p>Specifically with respect to Table 1 of IAEA SSG-14 titled: Features of the Safety Case and supporting safety assessment throughout the lifetime of a disposal facility, the main document that contains this type of information in general within CNSC's framework is REGDOC 2.11.1 volume III: <i>Safety Case for the Disposal of Radioactive Waste, version 2</i>, published 2021, which included consideration and alignment with IAEA SSG-23 (published 2012) <i>The Safety Case and Safety Assessment for the Disposal of Radioactive Waste</i> – the IAEA guide relevant for this topic (and which in turn cites SSG-14 as a reference). Furthermore, CNSC REGDOC-1.2.1 Deep Geological Repository Site Characterization, published in 2021, specifically considered guidance from IAEA SSG-14, and is a reference publication.</p> <p>CSA N292.7 <i>Deep geological disposal of radioactive waste and irradiated fuel</i> also includes IAEA SSG-14 as a reference publication. CSA N292.7 contains several tables with information presented in stages over the lifetime of the facility. For example, Table 1 identifies parameters to be addressed by the site characterization program; and Table 2 describes ongoing site evaluation by analytical assessment.</p> <p>The licence application guide refers to all of these documents, in the relevant sections and topical areas.</p> <p>See also response to comment #2. No change was made.</p>
78.	CNL, Bruce Power, NB Power, NWMO, OPG	3	MAJOR: There are SCAs which may not be applicable during the licence to prepare the site so some of these sections are misleading (e.g., <i>Radiation protection</i>), especially since the licence to prepare the site does not	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch,	- For consistency, all 14 SCAs should be identified in the REGDOC and should be responded to in the application; if there are some which an applicant deems to not be	All safety and control areas that are applicable to site preparation are referenced in the REGDOC. No change was made.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			permit the licensee to process, handle or store radioactive substances (as mentioned elsewhere in the document). <i>Impact:</i> Unnecessary reference to SCAs that are not relevant to the LTPS increase administrative burden. <i>Proposed change:</i> Review the citing of all 14 SCAs in this REGDOC to identify only those applicable for the LTPS.	Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	appropriate to the application / licensing stage the applicant can state that in the application.	
79.	CNL, Bruce Power, NB Power, NWMO, OPG	3.1 bullets on Management System - a work schedule	<i>Clarification:</i> Last bullet “A work schedule” appears to be incomplete or is unclear on what it means - the licensing package will include a work schedule, however, it’s not clear how it should be a requirement of the management system. <i>Proposed change:</i> Add more text to clarify this bullet.	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- We agree with industry that there appears to be a formatting error in Section 3.1 which resulted in “a work schedule” not being bulleted; “work schedule” should be bulleted - Industry states that the licensing package will include a work schedule, but this is not actually indicated in the REGDOC, including in Section 4. “Standard application information” - A work schedule should be included in section 3.1 to indicate how it intersects with the management approach, and a more detailed work schedule or work plan should be included in the application, including dates, description of each work item, and the responsible party within the applicant’s management and operational team(s) who will have lead responsibility	As per CSA N286-12, clause 4.8.1 f) Work planning, a work schedule needs to be created during site preparation to identify the different phases/milestones of site preparation. For clarity, the bullet reading “work schedule” in section 3.1 has been replaced with: Key dates and milestones for the anticipated site preparation work activities
80.	CNL, Bruce Power, NB Power, NWMO, OPG	3.1 bullets on Management System - policy for the use of contractor’s resources...	<i>Clarification:</i> The prescriptive nature of requiring a policy for the use of contractors isn’t clear - suggest changing this requirement to any type of control. <i>Proposed change:</i> policy for the use of <u>management of</u> contractors’ resources to supplement in-house capability.	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- We agree that “policy” might not be the appropriate descriptor the requirement “policy for the use of contractors’ resources to supplement in-house capability” and this may be better captured by the term “procedure”, or protocol” - We support the requirement and suggest that the intersect between this protocol and the requirement several bullets further down the list that “ <i>documentation on the resources to control the work performed by contractors, in particular, defining the</i>	The bullet was edited as follows: use of contracted resources to supplement in-house capability

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
					<i>requirements for the activities, and description of oversight and integration</i> ” be required should be clearly stated - Our expectation is that these requirements are intended to achieve important management elements such as transparency, traceability, continuity, and consistency and that protocols will be required to ensure that the licensee has and maintains overall knowledge and understanding of their own project; this may be challenging over time and given the many diverse aspects of the project, but is essential to building and maintaining institutional knowledge and control, as well as accountability	
81.	CNL, Bruce Power, NB Power, NWMO, OPG	3.1, bullets on Management System - procedures to control the effectiveness....	<p><i>Clarification:</i> The following bullet: <i>procedures to control the effectiveness of assessments and engineering activities performed in the different stages of the site evaluation process, including records of all work carried out during site evaluation and characterization, which must include a description of the measures for preservation of the records</i></p> <p>seems like an odd mix of activities. The required expectation from this bullet is not clear.</p> <p><i>Proposed change:</i> Recommend reviewing the bullet and providing clarity around the required expectation.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As per above, our expectation is that these requirements are intended to achieve important management elements such as transparency, traceability, continuity, and consistency and that protocols will be required to ensure that the licensee has and maintains overall knowledge and understanding of their own project; this may be challenging over time and given the many diverse aspects of the project, but is essential to building and maintaining institutional knowledge and control, as well as accountability. - We support the REGDOC including additional detail to ensure that industry understands these requirements.	<p>The statement has been revised for clarity and now forms three separate bullets:</p> <ul style="list-style-type: none">procedures to control the effectiveness of assessments and engineering activities performed in the different stages of the site evaluation processrecords of all work carried out during site evaluation and characterizationmethods for preservation of records <p>CNSC staff note that all three elements are very important for such a complex project to ensure that objective evidence of the work performed, procedures and records is maintained. The last bullet is key since the project is for very long time and the records from this phase may be needed for construction and operation.</p>
82.	CNL, Bruce Power, NB Power, NWMO, OPG	3.1, bullets on contractual obligation	<p>MAJOR: The following statement and bullets are premature for a Licence to Prepare Site application:</p> <p><i>The applicant must also ensure, as a contractual obligation, that:</i></p> <p>☐ <i>the applicant and the CNSC will have right of access to the premises of any supplier carrying activities specified in the application</i></p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra	- We disagree with the industry comment that these requirements should be removed. - We accept the industry’s comment that at this point a proponent would not be utilizing components for the nuclear facilities until later phases, but a licensee may in fact be	The requirements are intended to also ensure that CNSC inspectors are able to access the work activities and premises associated with any regulated activity, including that of third parties who have been contracted by the applicant or licensee to undertake work associated with the license to prepare site. This is in keeping with clauses 9.5.7 (verification) and 9.5.2 (purchasing requirements,

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>☐ <i>all sub-suppliers will provide right of access to their premises by those clients who are suppliers</i></p> <p>Impact: Additional administrative burden on the applicant without any benefit to nuclear safety.</p> <p><i>Proposed change:</i> Remove these bullets. At this point this is premature. A company would not be procuring components for the nuclear facilities until the construction phase.</p>	Club of Canada Foundation, We the Nuclear Free North	procuring components for the nuclear facilities or prototypes of those components, and these components may be incorporated into the safety case which the applicant is providing at each licensing stage, including the site preparation licensing stage. For example, the applicant may reference or rely upon a specific design for a used fuel container which is not going to be utilized until a later stage but which has been incorporated into the safety case being submitted as part of licencing for earlier stages	<p>including the right to access work facilities) of CSA N286-12.</p> <p>For clarity, the two bullets were revised to the following: The applicant must also ensure, as a contractual obligation, that the applicant and the CNSC will have right of access to the premises of any supplier and sub-supplier carrying activities specified in the licence.</p>
83.	CNL, Bruce Power, NB Power, NWMO, OPG	3.1, bullets on contractual obligation	<p><i>Clarification:</i> The wording for sub-suppliers is unclear - should the CNSC choose to keep the two bullets in the regdoc (see comment above), suggest similar language as the first bullet.</p> <p><i>Proposed change:</i> all sub-suppliers will provide right of access to their premises by those clients who are suppliers</p> <p><u>the applicant and the CNSC will have right of access to the premises of any sub-supplier carrying activities specified in the licence</u></p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- See immediately above.</p> <p>- We agree that the CNSC should be added to the second bullet.</p> <p>- Any such inspections or site visits should be documented, and the document included in a public registry for the project which spans all licensing stages.</p>	See the response to comment #82.
84.	CNL, Bruce Power, NB Power, NWMO, OPG	3.1 Management system, last paragraph	<p><i>Clarification:</i> It is unclear the purpose of this statement - Implies the licensees do not use qualified staff. Contradictory if required to comply with N286-12 which requires the workers to be qualified.</p> <p><i>Proposed change:</i> Delete unnecessary/redundant requirement.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- We disagree with industry's statement that this paragraph implies that licensees do not use qualified staff and we strongly disagree with the industry request that it be removed.</p> <p>- Industry's failure to recognize the appropriateness of this requirement is worrisome, and furthers the impression that industry considers constructing a DGR to be on par with a quarry operation and that industry dismisses or seeks to diminish recognition of the sensitive and safety-related nature of this project.</p>	The statement under section 3.1 is about specific experience and knowledge for this complex and unique project and the necessity of interfacing multiple disciplines, including research and development activities. The statement in section 3.1 complements the information in section 3.2. No change was made to the text.
85.	CNL, Bruce Power, NB Power, NWMO, OPG	3.2 Human performance	<p><i>Clarification:</i> "...including worker training, is addressed under the management system SCA."</p> <p>This supports the redundancy identified in s. 3.1 comment.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and	- As with the redundancy comment with respect to s 3.1 (i.e. industry's previous comment) we disagree, and note that industry provided no	See the response to comment #84.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<i>Proposed change:</i> Delete unnecessary/redundant requirement from s. 3.1.	Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	supporting argument for this comment.	
86.	CNL, Bruce Power, NB Power, NWMO, OPG	3.3 Operating performance	<p><i>Clarification:</i> Some of the content described at Operating performance may be more applicable under other SCAs (e.g., the second bulleted list are risk or hazards that would be covered under a safety analysis or conventional health and safety).</p> <p><i>Proposed change:</i> Move second bulleted list to Conventional Health and Safety section.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- It is appropriate to retain these bullets in this section on operating performance</p> <p>- We support adding additional text to establish clear linkages between Section 3.3 and Section 3.8</p>	<p>The placement of this content is consistent with the existing regulatory framework . The meaning of operating performance in this context is that applicant shall outline the strategy that the applicant will take (including development of mitigation measures) upon discovery of additional risks to the health and safety of the public that were not anticipated during the licence application process.</p> <p>To clarify the text, a link to Section 3.8, stating that related information can be found there, was added.</p>
87.	CNL, Bruce Power, NB Power, NWMO, OPG	3.3 Operating performance, last paragraph	<p><i>Clarification:</i> The text states: “Where risks to the health and safety of either workers or the public could be higher than for a conventional project, the applicant should provide credible research supporting the potential consequences and measures to mitigate the risks. For example, if site investigation has indicated the presence of a sub-surface hazardous substance, the applicant should provide an investigation of the effects of that substance, if unearthed, on the health and safety of workers and the local public.”</p> <p>It is unclear how the applicant should establish if the “risks to health and safety... could be higher than for a conventional project”.</p> <p><i>Proposed change:</i> Suggest revising the text to: Where risks to the health and safety of either workers or the public could be higher than for a conventional project <u>are identified</u>, the applicant should provide credible research supporting the potential consequences and measures to mitigate the risks.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- The industry’s suggestion to insert “are identified” creates more ambiguity and removes the onus on the licensee to carry out this evaluation</p> <p>- Who is industry suggesting would identify the additional risks?</p> <p>- The suggested change to wording implies that it is the responsibility of some entity other than the licensee to carry out that identification, hence obfuscating their responsibilities</p>	This change was made to the text.
88.	CNL, Bruce Power, NB	3.4, 1 st bullet	MAJOR: The current wording in Section 3.4 might be interpreted as requiring a full analysis at the site preparation stage, where some of the data might not be	Canadian Environmental Law Association, Concerned Citizens of	- The greater need for certainty is that of the public, Indigenous peoples and the environment; it is, as	CNSC staff note that the proposed change could cause confusion since the concept of a “preliminary safety analysis” does not exist in the regulatory framework.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
	Power, NWMO, OPG		<p>fully available until the Licence to Operate licence application stage. A graded approach should be applied.</p> <p><i>Impact:</i> Ambiguous requirements will increase the regulatory uncertainty for the proponents and operators of a DGR.</p> <p><i>Proposed change:</i> When referring to the safety analysis for later licensing stages of a DGR, under different CNSC licences, the text in this section should be revised and “<u>preliminary</u>” should be used. For example, <u>preliminary</u> safety analysis of operational and post-closure activities</p>	Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	previously noted in this comment column, essential that safety assessment for both pre-closure and post-closure be assessed in each licensing stage	However, staff agree that the graded approach would apply and that the applicant would conduct their safety analyses in accordance with REGDOC-2.4.4. No change was made to the text.
89.	CNL, Bruce Power, NB Power, NWMO, OPG	3.4 Safety analysis	<p><i>Clarification:</i> Under Safety Analysis, the pre-closure portion is referred to as an “analysis” whereas the post-closure portion is referred to as an “assessment”. Furthermore, Section 3.6 refers to a “pre- [and post-] closure safety assessment. REGDOC-2.11.1 (Waste Management, Volume III) states that “Safety assessment is often used interchangeably with safety analysis”. If these terms can be used interchangeably with no difference in meaning, suggest defining safety analysis and stating that the terms “analysis” and “assessment” can be used interchangeably.</p> <p><i>Proposed change:</i> Add the definition of a safety analysis in the REGDOC with a note that “<u>Safety assessment is often used interchangeably with safety analysis.</u>”</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- We support clarity being brought to the terminology with respect to the safety case, and would support a determination that safety analysis, safety assessment, safety report and safety case could be used interchangeably.</p> <p>- Insider language and use of jargonized terminology often has the effect of excluding members of the public from important discussions and discounting or discarding public comments when they use terms as a lay person rather than with a silo-specific meaning, as might be the case in the use of some terms by industry and regulator.</p>	<p>The terminology used in the draft is consistent with the associated reference documents, such as CSA N929.7, where applicability of different terminology is clearly distinguished for pre-closure stage (to be consistent with REGDOC-2.4.4) and post-closure stage (to be consistent with REGDOC-2.11.1, Volume III). No change was made.</p> <p>Note that safety case, safety analysis and safety assessment are all defined in REGDOC-3.6, <i>Glossary of CNSC Terminology</i>, which is published to help the public understand the CNSC’s use of these terms.</p>
90.	CNL, Bruce Power, NB Power, NWMO, OPG	3.4 Safety analysis, 4 th bullet	<p>MAJOR: The fourth bullet says the applicant must include: <i>“• considerations for both design-basis events and beyond-design-basis events for the operational phase, with a focus on the concept of potential cliff-edge effects when analyzing external hazards, where a small change of conditions may lead to a catastrophic increase in the severity of consequences.”</i></p> <p>The <u>operational phase</u> covers activities and timescales that go beyond the activities under the licence to prepare site. Is this interpreted as the portion of the operational phase that is only relevant to the activities required for preparation of site?</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- Further to the previous comment, we consider “cliff-edge effects” to be another example of insiders’ language. We find the term to be useful and relevant and appreciate that the bullet does include some explanatory text, but it is an example where a hyperlink to further explanation would make the document more accessible.</p> <p>- We firmly disagree with the industry proposal that this bullet be deleted; as noted above, in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the</p>	<p>The fourth bullet was revised to read:</p> <ul style="list-style-type: none"> <i>considerations for both design-basis events and beyond-design-basis events for the operational phase in accordance with section 4.1 of REGDOC-2.4.4 [18]</i>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>Impact: Ambiguous requirements will increase the regulatory uncertainty for the proponents and operators of a DGR.</p> <p><i>Proposed change:</i> It is suggested that the fourth bullet is deleted:</p> <p>“considerations for both design-basis events and beyond design-basis events for the operational phase, with a focus on the concept of potential cliff-edge effects when analyzing external hazards, where a small change of conditions may lead to a catastrophic increase in the severity of consequences.”</p>		full range of risks and uncertainties, including consideration of post-closure issues during the pre-operational licensing stages	
91.	CNL, Bruce Power, NB Power, NWMO, OPG	3.4 Safety analysis	<p><i>Clarification:</i> The last bullet (<i>a post-closure safety assessment that is in accordance with REGDOC-2.11.1 Volume III</i>) should include the adjective “preliminary” to align with IAEA SSG 14.</p> <p><i>Proposed change:</i> Add “<u>preliminary</u>” in front of “post-closure”.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- We disagree with industry’s suggestion that this requirement be downgraded to “preliminary”; as noted above, in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the full range of risks and uncertainties, including consideration of post-closure issues during the pre-operational licensing stages	The text is consistent with CNSC requirements and guidance, particularly REGDOC-2.11.1, <i>Waste Management, Volume III: Safety Case for the Disposal of Radioactive Waste</i> , section 5.2. No change was made.
92.	CNL, Bruce Power, NB Power, NWMO, OPG	3.4 Safety analysis , last paragraph	<p><i>Clarification:</i> “The applicant should have a credible program for managing safety issues, which includes a research and development program.”</p> <p>What defines a R&D Program and why does it need to be a requirement?</p> <p><i>Proposed change:</i> Seeking clarity on the expectations for an R&D program and the rationale for why it is a requirement.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- As requested in Northwatch’s comments, we propose that CNSC provide a full dispositioning of comments received on draft REGDOC 1.2.3; we are interested in how CNSC dispositions this comment by industry.</p> <p>- We note that industry persistently resists requirements related to safety issues.</p>	<p>CNSC staff note the importance of research and development to DGRs. Section 2 of REGDOC-2.4.4 addresses research related to safety analyses. The text was revised as follows:</p> <p>The applicant should have a credible program for managing safety issues, which includes any planned or ongoing research and development activities.</p>
93.	CNL, Bruce Power, NB Power, NWMO, OPG	3.5 Physical design, last line	<p>MAJOR: This sentence:</p> <p><i>For structure design and system design at the site preparation stage for a DGR facility, the applicant should propose design descriptions and guides.</i></p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch,	- We note that industry is differentiating between the role of proponent and operators of a DGR and correspondingly comment that	No change was made since the text is consistent with REGDOC-2.5.1, where the requirements are set.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>doesn't appear to be adding any additional detail or guidance to the REGDOC. Clarity on deliverables or explanation on what this sentence is adding to the requirements already provided in this section is requested.</p> <p>Impact: Ambiguous requirements will increase the regulatory uncertainty for the proponents and operators of a DGR.</p> <p><i>Proposed change:</i> Either delete this sentence or add clarity to the requirement (such as "conceptual of preliminary).</p>	Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>the REGDOC must make absolutely clear who the responsible entity is.</p> <p>- As requested in Northwatch's comments, we propose that CNSC provide a full dispositioning of comments received on draft REGDOC 1.2.3</p> <p>- We are interested in how CNSC dispositions this comment by industry.</p>	
94.	CNL, Bruce Power, NB Power, NWMO, OPG	3.6 Fitness for service	<p><i>Clarification:</i> It is unclear how SSCs as defined in REGDOC-2.6.3 apply to the features of the repository essential to the performance of the repository through the post-closure period, including the geosphere, the engineered sealing materials, the used fuel container, and the used fuel. Aging management plans for these components through the operations period would not be meaningful. Aging management should ensure that these SSCs are as described at the start of the post-closure period.</p> <p><i>Proposed change:</i> Suggest revised text: <i>The application must include a preliminary aging management plan, listing all <u>identifying key</u> SSCs important to safety <u>during the lifecycle of the facility, and in particular addressing any such SSCs that are part of the LTPS.</u> to provide for the timely detection and mitigation of the aging effects to ensure integrity and functional capacity of the SSCs throughout the pre-closure period and ensure that they are described in the pre- and post-closure safety assessments (see Safety Analysis). For more information, see Appendix A of REGDOC-2.6.2, Aging Management [9].</i></p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- As noted above, in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the full range of risks and uncertainties, including consideration of post-closure issues during the pre-operational licensing stages</p>	<p>The text is consistent with underlying CSA standard. Furthermore, the REGDOC is written in such a way that it could be applied to any DGR concept.</p> <p>The integrated aging management plan needs to consider the aging effects of all SSCs important to safety, but it may conclude that it is unnecessary to manage aging for many SSCs. No change was made.</p>
95.	CNL, Bruce Power, NB Power, NWMO, OPG	3.7 Radiation protection	<p><i>Clarification:</i> The licensed activity in the site preparation stage does not include any radioactive waste. Is the radiation protection (RP) program meant for radiation source used for construction/inspection (e.g., X-ray examination)?</p> <p><i>Proposed change:</i> Seeking clarity on the scope for the RP program in the site preparation stage.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada	<p>- As noted above, in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the full range of risks and uncertainties, including consideration of post-closure issues during the pre-operational licensing stages</p>	<p>The site preparation stage does not include licensed activities related to radioactive waste. However, the RP program is intended for radiation sources used for construction/inspection and protection of workers from natural hazards such as Radon that may be encountered when working underground.</p> <p>As the project proceeds, the radiation protection program will evolve. No change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
				Foundation, We the Nuclear Free North		
96.	CNL, Bruce Power, NB Power, NWMO, OPG	3.8	<i>Clarification:</i> Conventional Health & Safety <i>Proposed change:</i> Seeking clarity on whether this section is just for the site preparation phase? If so, this should be clearly stated.	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As noted above, in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the full range of risks and uncertainties, including consideration of post-closure issues during the pre-operational licensing stages	Section 1.2 provides the REGDOC's scope, to describe the requirements and guidance to obtain a licence to prepare a site. Section 2 provides typical examples of site preparation activities. No change was made.
97.	CNL, Bruce Power, NB Power, NWMO, OPG	3.9 Environmental protection	<i>Clarification:</i> Defining baseline characteristics would have been part of the site selection process while continuing to collect baseline data could be activities part of the site preparation activities. <i>Proposed change:</i> For site preparation, environmental monitoring consists of defining baseline characteristics and of monitoring the effects of site preparation activities on the environment.	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- Any activities carried out during the NWMO's site selection process is outside of any licensing or regulatory process, including outside the impact assessment process, and as such was wholly at the discretion and advantage of the licensee. - While it is a significant flaw in the overall system that there is no oversight or regulatory requirements during the site selection stage, the industry suggestion that anything that happened in the site selection period is out of bounds for the license to prepare the site application process should be fully rejected.	The text was modified as suggested by commenters. Note that information gathered during site selection that is included in the initial licence application to CNSC would be subject to regulatory review. This would include any information related to baseline characterization and monitoring (see Figure 1 REGDOC-1.2.1).
98.	CNL, Bruce Power, NB Power, NWMO, OPG	3.10 Emergency and Fire	<i>Clarification:</i> Requirements for an Emergency Preparedness (EP) Program seems premature for this phase. <i>Proposed change:</i> Seeking clarity on the scope for EP program in the site preparation phase.	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- We are puzzled as to why the industry questions the need for an emergency preparedness program for an industry operation at an industrial site, potentially in a remote and/or rural area. - We are interested in how CNSC dispositions this comment by industry.	The hazard assessment would form the planning basis for the EP Program. The CNSC expects the program to be commensurate to the hazards identified during site preparation, therefore no change was made.
99.	CNL, Bruce Power, NB	3.10 Emergency and Fire	<i>Clarification:</i> The requirement to demonstration a fire response capability as described in CSA N393:22 is for	Canadian Environmental Law Association,	- As previously noted, REGDOCs should set out their requirements as a	Since there would be no radioactive materials on site, CSA N393 would not apply for fire response, so it has been

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
	Power, NWMO, OPG		<p>facilities that handle radioactive substances. During the site preparation phase, there will not be any radioactive substances, therefore, this CSA standard shouldn't apply at this time.</p> <p><i>Proposed change:</i> Remove reference to CSA N393:22, but keep the requirement to describe the fire protection program.</p>	Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	stand-alone document, not dependent on by-reference-only inclusions, particularly to industry generated documents such as the CSCA standards,	<p>removed from the text. However, the applicant does need to identify how fire response would be implemented at the site (e.g. incipient level firefighting, arrangements with off-site fire departments and other training for fire prevention.</p> <p>Section 3.10 was revised as follows:</p> <p>Fire Protection Program</p> <p>The application must describe a fire protection program to ensure adequate protection against fires. It should describe how the fire protection activities will be implemented, managed and monitored to ensure that fire risks are minimized during site preparation activities, as applicable.</p>
100	CNL, Bruce Power, NB Power, NWMO, OPG	3.12 Security	<p><i>Clarification:</i> CSA N290.7 - scope should be reviewed for the appropriateness and applicability to DGR site preparation phase.</p> <p><i>Proposed change:</i> Review the scope of CSA N290.7 for applicability to DGR at the site preparation phase.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	<p>CNSC staff reviewed the scope of CSA N290.7 and concluded that the CSA standard CSA N290.7:21, <i>cyber security for nuclear facilities</i>, applies for all stages of licensing for a DGR, including the license to prepare site (LTPS). However, to enhance clarity, section 3.12 has been modified as follows:</p> <p>The application must describe the cyber security program, processes and procedures that have been or will be defined and implemented to comply with CSA N290.7, <i>Cyber security for nuclear facilities</i> [26].</p> <p>The applicant's cyber security program must describe each element of the program specified in section 4.2 of CSA N290.7 [26], with sufficient detail to show that the cyber threats, vulnerabilities and risks identified in the Site Selection Threat and Risk Assessment (SSTRA) are properly considered.</p>
101	CNL, Bruce Power, NB Power, NWMO, OPG	3.15 Reporting requirements	<p><i>Clarification:</i> REGDOC 3.1.2 - scope should be reviewed for the appropriateness and applicability to DGR site preparation phase.</p> <p><i>Proposed change:</i> Review the scope of REGDOC 3.1.2 for applicability to DGR at the site preparation phase</p>	. Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch,	- As noted above, in this and other instances, the DGR must be regarded as a single project and the multi-stage licensing process must consider the full range of risks and uncertainties, including consideration of post-	REGDOC-3.1.2, <i>Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills</i> , applies to Class IB nuclear facilities, including DGRs. The scope of the document applies to all licencing stages, and some of the clauses identified in the appendix apply to the licenced facility during site

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
				Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	closure issues during the pre-operational licensing stages	preparation. For example, item A1 states that the licensee must report a 'Contravention of the NSCA in relation to an activity that is authorized', which means that if the licensee goes outside of their licenced activities, they would need to report it. This is regardless of the licencing stage.
102	CNL, Bruce Power, NB Power, NWMO, OPG	4.12	<p><i>Clarification:</i> Considering the duration of the DGR, it would seem much too early to request cost projections.</p> <p><i>Proposed change:</i> Seeking clarity on the scope of tentative cost projections appropriate for this stage of development.</p> <p>Lessen rework for later changes to financial projections or misunderstandings leading up to cost estimates.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- The industry is proposing, with this comment, that they should be permitted to proceed with a project for which the costs are unknown. This is unacceptable, both as a suggested change to the REGDOC and as a practice on the part of a project proponent.	<p>Sections 8 and 9 in REGDOC 3.3.1, <i>Financial guarantees for decommissioning of nuclear facilities and termination of licensed activities</i>, clarify CNSC requirements around planning for decommissioning, which requires cost estimates. Planning for decommissioning is an integral part of the lifecycle planning of a nuclear facility. Furthermore, applicants are required to submit a preliminary decommissioning plan (PDP). The PDP should be filed with the CNSC as early as possible in the lifecycle of the facility.</p> <p>Planning for decommissioning is an ongoing process and should be considered at each lifecycle stage of the facility, from siting to decommissioning, therefore no change was made.</p>
103	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A	<p><i>Clarification:</i> Since the LTPS does not permit the licensee to process, handle or store radioactive substances (as mentioned elsewhere in the document) a number of the CSA standards listed will not be applicable at the site preparation phase. While the licensee needs to demonstrate a management system framework meets the regulatory requirements for any specific safety and control area has been addressed, some of those functions are not required until the applicant is licenced to possess, handle, or store radioactive substances onsite.</p> <p><i>Proposed change:</i> Review the list of standards in the Appendix to identify which are applicable for the LTPS.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	<p>Verification of standards in Appendix A was undertaken as part of the overall revision to the draft licence application guide. The preface of REGDOC 1.2.3 provides information on the application of the graded approach (in REGDOC 3.5.3), and specifically points to more information about the application of the graded approach for a geological disposal project specified in CSA N292.7. Several changes were made to Appendix A.</p> <p>See also comment #26.</p>
104	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A	<p><i>Clarification:</i> This appendix mentions CSA N292.6 as a reference document. N292.6 is being withdrawn because of the restructuring of the N292 series. The N292 TC recently voted on this matter.</p> <p><i>Proposed change:</i> Seeking clarity whether N292.6 is still applicable.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	CSA N292.6 was removed from Appendix A

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
				Foundation, We the Nuclear Free North		
105	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A, Physical design, Site characterization	<p><i>Clarification:</i> CSA N292.7-22 should be included as a reference document. Section 2.2 points to this standard, so the appendix should be consistent.</p> <p><i>Proposed change:</i> Add CSA N292.7-22 as a reference document.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	The Appendix has been updated to include CSA N292.7-22 under Physical Design, site characterization.
106	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A, Physical design, Facility design	<p><i>Clarification:</i> CSA N292.2-13 was listed as a reference document. It was the consensus that N292.2 (the dry storage standard) would not apply to the DGR. The DGR programs would not interface with the Dry Storage Container (DSC) as the responsibility of opening the DSCs and transferring the fuel to transportation package falls on the utilities.</p> <p><i>Proposed change:</i> Remove reference to N292.2.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	CSA N292.2 was removed from Appendix A See also comment #27.
107	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A, Physical design, Structure, system and component design	<p>MAJOR: CSA N285.0 is listed as a reference document. N285 is specific for NPP and reactor design. It is not appropriate for the design of Class IB facilities, even with the graded approach. REGDOC 1.2.2 (Draft) would be the appropriate guide.</p> <p>CSA N285 is specific for the pressure boundary of NPPs. For reactors in the NPPs, the pressure boundary is the major system (the entire reactor is a pressurized system), and N285 would address the primary structural safety needs. In a nuclear substance processing facility, e.g., the used fuel packaging plant. Pressure boundary is not the key. The key aspect of safety is on handling and manipulations of nuclear substance, radiation protection and containment, which is not addressed by N285.</p> <p>Impact: Following N285 to design the SCCs in a Class IB facility may create a significant burden without increasing</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	<p>There are a number of sections/paragraphs in CSA N285 and the ASME codes cited in Appendix A that are applicable to the design and construction of Class IB facilities. For example:</p> <ul style="list-style-type: none">• the materials and material allowable stresses in ASME codes• the requirements for welding in ASME codes and the CSA standard• the requirements for NDE examination in ASME codes and the CSA standard• the processes for classification, registration/registration exemption in CSA N285 <p>If an applicant chooses to follow these applicable requirements in the codes or standards, the CNSC's application review will verify code compliance. Should an applicant decide not to follow the requirements deemed</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>safety. For example, N285 is structured around the classified process system, e.g., Class 1, 2, 3 and 6. Per the definitions for these classes, most (if not all) process systems in a used fuel packaging plant would be Class 6. Design of Class 6 is referred to CSA B51 which goes to ASME B31. It would be more efficient and logical to identify the design guide commensurate with the need and the appropriate standards without cycling around. REGDOC-1.2.2 provides a flexible and more reasonable framework for the physical design of the facilities. It is better than pointing to N285 (which can be misleading).</p> <p><i>Proposed change:</i> Remove reference to CSA N285 and replace with REGDOC-1.2.2.</p>			<p>acceptable to the CNSC, they need to provide detailed test data or qualification results to justify their design.</p> <p>The codes/standards referenced in the REGDOC provide guidance, in whole or in part, to help applicants with their license application. Licence applicants are encouraged to engage early with CNSC for clarification of specific topics, as needed. No change was made to the text.</p>
108	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A, Physical design, Structure, system and component design	<p><i>Clarification:</i> Some ASME codes are listed as reference documents. These codes are at the technical detail level and only address some specific applications (i.e., pressure boundary construction). Why aren't other technical codes and standards listed here, such as those governing automation, electric/electronic equipment, lifting equipment, control system, human interface, etc. The calling of references here seems random and lack of focus. It is better to limit the references to high-level requirements and guidance (i.e., REGDOCs, CSA standards) and not to include those at the detail level.</p> <p><i>Proposed change:</i> Remove all ASME codes from the reference list</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	<p>The references in Appendix A are not intended to be exhaustive as some of the applicable guidance documents may depend on the particular characteristics of the site or design of the facility, for example. However, the list of references in Appendix A was revised following public consultation.</p> <p>See also response to comment #107.</p>
109	CNL, Bruce Power, NB Power, NWMO, OPG	5 Appendix A, Waste management, Decommissioning plans	<p><i>Clarification:</i> Reference list does not include CSA N292.7-22. Clause 14 of N292.7 provides guidance on repository closure.</p> <p><i>Proposed change:</i> Add CSA N292.7-22 as a reference document.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	- As previously noted, REGDOCs should set out their requirements as a stand-alone document, not dependent on by-reference-only inclusions.	The Appendix has been updated to include CSA N292.7-22. Also, see response to comment #2.
110	CNL, Bruce Power, NB	5 Appendix A, Table 1	<i>Clarification:</i> Unclear whether this list is guidance or requirements?	Canadian Environmental Law Association, Concerned Citizens of	- We are interested in how CNSC dispositions this comment by industry.	Appendix A includes the key references cited in the body of the REGDOC as well as additional reference material that may be useful in building an application to prepare

No. Reviewer		Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
	Power, NWMO, OPG		<i>Proposed change:</i> Revise text to confirm the list is for guidance purposes.	Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North		the site for a DGR. The body of the REGDOC contains the key requirements and points to the most relevant guidance documents.
115	Northwatch	3.10 Emergency and Fire	We support the comments provided by Mississaugas of Scugog Island First Nation. In particular, we support their comments on the role of Indigenous people in decision-making and oversight with respect to nuclear facilities, the importance of addressing potential risks to groundwater, that environmental monitoring should first begin with predicting the effects of site preparation and mitigating certain impacts before they happen and then monitoring for unanticipated impacts, the importance of including mandatory reference to hazards of a malevolent nature, and that the REGDOC use stronger language than “the applicant should consider the emergency response to these hazards”, and the requirement of Indigenous consent prior to commencing to any or each licensing stage.			See responses to comments #51 and #53.
116	Northwatch	n.a.	Northwatch supports the comments submitted by Dr. Sandy Greer, and in particular those made with respect to Section 3.3 Operating performance, Section 3.4 Safety Analysis, Section 3.5 Physical design, and Section 3.11 Waste Management, and more generally Dr. Greer’s observations with respect to the overly generic and ambiguous and imprecise quality of much of the draft regulatory document.			See responses to comments #47-50.
117	Northwatch	n.a.	Northwatch was one of several civil society and environmental non- governmental organizations who collaborated to prepare feedback on the comments submitted collectively by the Nuclear Waste Management Organization, Bruce Power, Ontario Power Generation, New Brunswick Power and Canadian Nuclear Laboratories on draft Regulatory Document 1.2.3 - Licence Application Guide: Licence to Prepare Site for a Deep Geological Repository (DGR). The outcome of that review is set out in the table attached to this letter. The following points are summary only; please see the table for a more detailed outline of feedback on the comments submitted by the NWMO and others in the nuclear industry.	You		The CNSC has reviewed all the comments received during the public consultation period and thanks all commenters for their input. The REGDOC document has been revised in response to applicable comments related to the scope of the document.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>Northwatch agrees with the nuclear industry's observation that there are inconsistencies between REGDOC and CSA standards, that the lack of knowledge about future sources and pathways for emissions and releases is highly problematic, that some of the language throughout the REGDOC is ambiguous and this should be rectified</p> <p>We also agree with industry that it will be "difficult to fully prove the site will remain good for the full lifecycle due to the large uncertainties associated with the time frame"; this is a fundamental issue with the DGR approach to radioactive waste management.</p> <p>Northwatch disagrees with the following points contained in the nuclear industry's joint submission:</p> <ol style="list-style-type: none">1 That a DGR is less complex than a nuclear power plant and so therefore the licencing process should be less complex and less costly2 That "Decommissioning of surface facilities... does not necessarily affect the post-closure safety or performance"3 The industry suggestion that the Design Line be continued through operations; this could open the door to a proponent filing an incomplete application with design relegated to a "to be determined" status- As with the redundancy comment with respect to s 3.1 (i.e. industry's previous comment) we disagree, and note that industry provided no supporting argument for this comment. <p>While it is a significant flaw in the overall system that there is no oversight or regulatory requirements during the site selection stage, the industry suggestion that anything that happened in the site selection period is out of bounds for the license to prepare the site application process should be fully rejected</p>			

2 Comments outside the CNSC’s mandate or saved for future consideration / Commentaires reçus qui ne relevaient pas du mandat de la CCSN ou qui ont été conservés pour un examen futur

No.	Reviewer	Section	Reviewer’s Comment	Feedback commenter	Feedback comment	CNSC response
1.	Alexandra Franche	0 General	<p>I am against deep ground repositories for multiple reasons after listening to many presentations on the topic.</p> <p>-There is currently no safe way of containing nuclear waste in the ground forever and anywhere in the world and no DGR anywhere yet.</p> <p>-Canada should not plan to bury the nuclear waste and forget about it (a repository). Sweden has been designing one for the past 40 years but even they have apprehensions so they would make the waste retrievable and they would be monitoring it to mitigate the risks, though it’s very costly.</p> <p>-The containers are subject to humidity and heat underground which is a problem and the current material in which they are encapsulated is corroding and deteriorating and there needs to be a plan to make sure that material is regularly monitored in order to replace it. There needs to be proper funding in order to do that and a plan to do so down the line regardless of future elected political parties.</p> <p>-The US tried to use the Yucca mountain as a repository to contain their nuclear waste and their design failed because of the water, the porous surfaces, and the containers for instance. The volcalianic/seismic activity was known but the project went ahead... and it was part of why it was so problematic. We would want better assurances about the long term safety of the operation in the selected sites.</p> <p>-I am also against it because it should not be a matter of strictly allowing the municipality in which it will be buried in to vote. The land is on unceded Native territory to begin with and communities should have full informed prior consent and it shouldn’t just be limited to the town that will host the mounds of nuclear waste, the waste will travel through numerous towns and cities, using provincial roads and highways that belong to all Ontarians and Canadians.</p>			<p>The CNSC is responsible for licensing certain activities as set out by the NSCA, which includes site preparation for nuclear waste facilities, such as a DGR. REGDOC-1.2.3 lays out the requirements any applicant would have to meet <u>before</u> the CNSC could issue a licence to prepare the site for a DGR. Any matters relating to suitability of the site, facility design, type of waste stored, means of containment and so on are first proposed by the applicant and then assessed by the CNSC against Canada’s legal requirements, which are further clarified in our REGDOCs. REGDOC-1.2.3 was written by CNSC experts who reference the work of their international peers on the best practices for effective nuclear waste management. No change was made.</p>
2.	Alexandra Franche	0 General	<p>-There should be a clear set of rules that potential licensees must meet to secure a license; not just for deep geological repositories, but for all nuclear projects. The rules must require a vigorous review of nuclear projects.</p>			<p>Canada’s energy policies, including those related to the use of nuclear power, are set by Natural Resources Canada. The role of regulatory oversight of the nuclear industry falls to the CNSC, as set out in the Nuclear Safety and Control Act and its regulations.</p>

No.	Reviewer	Section	Reviewer’s Comment	Feedback commenter	Feedback comment	CNSC response
			<p>-The nuclear industry is the operator of such nuclear projects and they themselves should not be regulators, a truly independent agency should be appointed.</p> <p>AND WE MUST STOP PRODUCING NUCLEAR WASTE. NOW.</p> <p>It is not clean energy. It is toxic, dangerous, and costly. We already have more waste than we can handle.</p>			<p>As part of CNSC’s regulatory framework, CNSC staff issue guidance in the form of licence application guides, which map out existing requirements from Canadian acts and regulations, relevant guidance documents and technical standards that inform the application process. Each guide is designed to outline the CNSC’s expectations for a licensed facility or activity, which can vary widely given the range of regulated entities overseen by CNSC staff. Any application submitted is subject to a thorough review process, which often includes public scrutiny at Commission hearings, before a licensing decision is made.</p> <p>No change was made in response to this comment.</p>
3.	Bill Noll Vice Chair Protect our Waterways No Nuclear Waste (POW)	1 Introduction	<p>In your introduction of the document, you specify that a DGR is a facility where radioactive waste is placed in a deep, stable, geological formation.</p> <p>This is a misleading statement as there is no actual tests that have been completed at either of the proposed sites that can support the conclusion that the rock will remain stable once the rock has been disturbed by the construction activities of blasting in the creation of the DGR.</p> <p>Also in your introduction a claim has been made that the facility is engineered to isolate and contain radioactive waste to provide the long term isolation of nuclear substances from the biosphere.</p> <p>How can such a claim be made for these specific sites under consideration when no actual testing has been completed at the site to determine if this is a fact? To date this has only been a claim made by the proponents of the DGR solution with no actual real live experience to substantiate this claim.</p> <p>In fact, the proponent of the DGR in these sites has stated that until the DGR is constructed there is no real specific data to provide at this time and that that this information regarding safety of the facility will only be available once the Federal regulatory bodies (CNSC and the Impact Assessment agency) have completed their reviews.</p> <p>In addition, the proponent of the DGR has stated that there will be releases of radioactive substances into the</p>	Northwatch	Northwatch supports the comments submitted by Protect our Waterways - No Nuclear Waste (POW), particularly with respect to the importance of factual and unbiased information, proposed the contradictions in the draft REGDOC between stating that a safety case for the site preparation of the project will be available when site preparation will take place in advance of the site characterization that will be required to support the safety case, the importance of including ancillary activities and impacts (noise, dust, traffic, etc.), and of underground water systems and aquifers and of surrounding land uses and users.	<p>The introduction of the REGDOC defines key concepts used within the document, which are not claims or statements, but rather explanations of terminology as it is widely understood and accepted in the scientific literature. REGDOC-1.2.3 outlines how an application for a DGR license to prepare site will be assessed against Canada’s legal requirements to protect the health, safety and security of people and the environment.</p> <p>The CNSC requires an applicant to develop a post-closure safety case, which is updated and verified for accuracy throughout the lifecycle of a DGR facility, and to provide an assessment of site suitability, for example, as part of the licensing expectations for site preparation. The licensing requirements are found in section 3 and 4 of the document. No change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>biosphere through the ventilation staffs, elevator staff, the above ground repacking facility and excavation of rock will cause releases of radioactive radon gasses. The proponent also claims that all of the radioactive releases will be within the limits specified by the regulatory bodies.</p> <p>The proposed document also states that a safety case for the site preparation of the project will be available. How is this possible when there is no specific site testing been completed to determine the parameters that defines the system or sets the conditions of operating a DGR?</p> <p>The potential site in South Bruce, has neighbouring farms and homes within 100 meters of the proposed creation of a DGR and the above ground repacking facility. Will the review consider the construction activities associated with creating a DGR including items such as heavy equipment operating hourly, blasting occurring frequently, noise being created by the constant backing up of vehicles, disruption to local traffic by heavy vehicles on the roads leading to the facility, dust created in the environment surrounding the site, and releases of radon gasses from the excavated rock that maybe on site.</p> <p>Do not understand that without a full evaluation of the completed structure for a DGR and testing, you can determine the site is suitable for a facility's full life cycle.</p> <p>Two other major component of the site selection plan have been ignored in your introduction namely the repacking facility that uses hot cells in its operation and the rock pile plans for the excavated rock pile which is assumed to be 15 meters high and cover an area of 65 acres.</p> <p>The NWMO implementation of a DGR is still under design review and changing and most importantly significantly different design than any DGR in the world.</p> <p>The major differences being the type of rock in South Bruce, the transport of the spent fuel from the reactor sites, the repacking facility is unlike any in the world requiring hotcells to protect the workers, the container design, the actual spent fuel itself, elevators versus ramp for transporting the spent fuel to the DGR, and the placement of the spent fuel bundles in the cavity.</p>			

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>The other factors of concern are environmental issues. The site in South Bruce has a major river running in the middle of the site, the site is rich with aquifers supplying the drinking water for the community of South Bruce, with all the noise during construction the wild life in the area will be impacted, and the quality of life for those that live in the adjacent property will be severely impacted.</p> <p>No longer can we rely on history to determine how the change in our climate will effect our weather conditions. We can only expect the weather to be more intense than previous years and given the South Bruce site has a major river within the site and we have ponds being constructed there is a high probability flooding will occur and the chance for the river to become polluted from not only the ponds but the excavated rock as well</p> <p>Given all the issues I see with the structure of the document, I find the intent of the site preparation document totally inadequate to determine if a site preparation should be licenced. There are way too many omissions in the introduction to make that determination.</p>			
4.	<p>Charles Rhodes, P.Eng., Ph.D.</p> <p>Xylene Power Ltd.</p>	0 General	<p>I am totally opposed to licensing of a DGR as envisaged by the NWMO.</p> <p>Climate change is primarily due to the rising atmospheric CO2 concentration. Today, in 2023, stopping further rise in the atmospheric CO2 concentration would require about 21,000 GWt of new dependable and sustainable clean (non-fossil) thermal power to meet the total thermal load presently met by combustion of fossil fuels. Due to increasing electrification in developing countries, by 2070 this total thermal load will likely rise to about 40,000 GWt.</p> <p>Intermittent renewable electricity generation cannot supply dependable power and, due to electricity dispatch constraints, can only economically provide about 25% of the required clean energy. Meeting the anticipated 2070 total thermal load with dependable power and clean energy will require both maximum economic renewable energy generation and a fleet of about: 30,000 X 300 MWe Small Modular Reactors (SMRs), each of which must have a sustainable fuel cycle.</p>			See response to comment #114.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p>Based on a projected Canadian population of 60,000,000 in 2070, Canada's share of these reactors will be about 450 X 300 MWe SMRs.</p> <p>In spite of ample evidence of relatively rapid climate change, elected governments with short time horizons continue to delay deployment of nuclear power plants with sustainable fuel cycles. The consequences of this deployment procrastination will be dire.</p> <p>There is simply not enough minable natural uranium to provide sustainable displacement of fossil fuels using water moderated reactors. Sustainable displacement of fossil fuels requires fuel breeding fast neutron reactors (FNRs). The start fuel for a sustainable nuclear fuel cycle is best obtained by separating the TRans Uranium actinides (TRU) from used water moderated reactor fuel. However, such separation is physically impossible if the used water moderated reactor fuel is placed in a DGR.</p> <p>The DGR should be totally replaced by used CANDU fuel reprocessing as described at</p> <p>www.xylenepower.com/Ottensmeyer%20Plan.htm.</p> <p>Interim storage of fission products and other radioactive material pending future use and reprocessing is best done using a facility such as Jersey Emerald, as described at:</p> <p>www.xylenepower.com/Jersey%20Emerald.htm.</p> <p>A major feature of Jersey Emerald is permanent accessibility above the water table for future inspection/container repair.</p>			
5.	Dr. Sandy Greer	1.3 Relevant legislation	<p>My final concern to document in this submission relates to what seems to be an open-ended question - lacking in any full transparency from either the NWMO in what it communicates, or from the CNSC as per this draft guide - about what types of radioactive waste in future could end up in the currently proposed DGR (given the development of small modular nuclear reactors and related versions), and from what geographic origins, namely, outside of Canada.</p> <p>Itemized under the Nuclear Safety and Control Act is section 26, which begins:</p>			<p>There will not be any activities related to the management of radioactive waste, including imports, during the site preparation phase, therefore no change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			<p><i>“Subject to the regulations, no person shall, except in accordance with a licence,</i></p> <p><i>(a) possess, transfer, import, export, use or abandon a nuclear substance, prescribed equipment or prescribed information;</i></p> <p><i>(b) mine, produce, refine, convert, enrich, process, reprocess, package,</i></p> <p><i>(c) transport, manage, store or dispose of a nuclear substance;</i></p> <p><i>(d) produce or service prescribed equipment; ...</i></p> <p>Also, section 3 is itemized, under the Nuclear Non-Proliferation Import and Export Control Regulations (NNPIECR). Section 3 is titled Application for Licence to Import or Export.</p> <p>My question is, why are the above specific pieces of legislation included in the CNSC draft guide for ‘Site Preparation’? Much more transparency is needed in the final guide, because the NWMO for a long time communicated that only Canadian-produced high level radioactive waste will be buried in a future DGR. Nor is there full transparency that various types of waste will end up in it too. Most recently, the NWMO has distributed a public announcement dated May 16, 2023 titled U.S. DOE and Canada’s NWMO sign joint Statement of Intent to Co-operate on Used Nuclear Fuel Management.</p> <p>Obviously, the identification of Section 3 in the NNPIECR leaves the door wide open to allow not only information to be exchanged across binational boundaries, even if that is the original intention of the Joint Statement. The latter is all about public relations and the hubris of the NWMO boasting about its international community in which it feels so important.</p> <p>The tone of this piece of PR, however, clearly communicates the determination of NWMO to have its way in the successful deep burial of radioactive waste. I have no polite words for its aggressive and manipulated pursuit of a so-called “consent-based siting process,” and pray that somehow it will be stopped.</p>			
6.	Gracia Janes Environment Convenor Provincial Council of	0 General	<p>Comments on the GCNSC draft guide for proponents in preparing the "license to prepare the site" for a proposed deep geological repository, i.e. REGDOC 1.2.3.</p> <p>As it relates to the Nuclear Waste Management Organization’s selection of one of two proposed sites at South Bruce and somewhere in between Ignace and</p>	Northwatch	Northwatch supports the comments submitted by the Provincial Council of Women, including their flagging of issues with computer-modelling and vague premises	<p>A DGR applicant would have to obtain a favourable impact assessment before any CNSC licensing decision could be made.</p> <p>No change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
	Women of Ontario		<p>Dryden, for burial and abandonment of all of Canada's high level nuclear waste, the Provincial Council of Women of Ontario strongly supports the view of other organizations and individual experts, that there should be a very strong set of rules in place before licenses to prepare any chosen site for a proposed deep geological repository are applied for.</p> <p>PCWO were intervenors at the Ontario Power authority Power Generation Project #17529 OPG/Bruce hearing from 2013 and 2014, regarding the deep burial of low and intermediate nuclear waste, where the Environmental Assessment and the site preparation were dealt with together on a rushed basis, and had many flaws.</p> <p>Examples of the flaws cited by PCWO, were the:</p> <ul style="list-style-type: none">❑ use of computer-modelled and vague premises and methods e.g. the overall, “investigate -as-you proceed” observational method (used in mining operations) to start and guide the building of the repository.❑ lack of attention to warnings of the EA Panel’s expert technical information re fissures/fractures and evidence of flow through from base of planned repository to surface and only 1of 6 cores being used was even close to the planned site❑ (as per CNSC’s critique of the current OPG background) lack of detail of the broad comparative geographic location.❑ surficial attention to environmental, health, safety and social factors. <p>Finally, the Provincial Council of Women (PCWO) believes that it is extremely important that the long term safety of this, the first deep geological repository in Canada, site which will have to hold an enormous amount of high level nuclear waste, be secured through a strong the environmental impact assessment process under the Impact Assessment Act, and only then should a site preparation permit be applied for.</p>		and methods such as “investigate -as- you proceed” observational method and the importance of having a thorough and complete impact assessment process completed in advance of the licensing process commence (i.e. before the license to prepare the site).	
19.	Northwatch	1 Introduction	<p>This section directly states that the application for a licence to prepare site and its referenced documents will “provides the safety case”, albeit with the qualifying language that this is “for the site preparation phase of the project”; this is a critical point: to provide the safety case, the project must have moved for “reference case” to a</p>			See response to comment #2.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			detailed proposal, and there is no indication that the NWMO will have a developed proposal by 2024 and certainly Ontario Power Generation did not have a complete proposal even at the point of being in the public hearing on their license applications for site preparation and construction; we strongly agree that a licensee must be required to provide a detailed safety case for their proposed project and that the supporting technical work must be available for examination by intervenors, but we are unconvinced that this will be the case			
20.	Northwatch	1 Introduction	This section directly states that it will be required that the application for a licence to prepare site ‘demonstrates that any technologies under consideration for the site will be able to withstand the conditions imposed on the facility by the site and its surroundings’ and “demonstrates that the site is suitable for a facility’s full lifecycle”; similar to the provision of the safety case, this is a critical point, and we strongly agree that these demonstrations must be delivered as part of the application for the License to prepare the site, but to do so the project must have moved from “reference case” to a detailed proposal, and there is no indication that the NWMO will have a developed proposal by 2024 or 2025 (the variously estimated dates for application submission); we strongly agree that a licensee must be required to provide this detailed information but note that meeting the requirement is unlikely to be achieved within the CNSC’s estimated time frames			See response to comment #2.
29.	CNL, Bruce Power, NB Power, NWMO, OPG	0 General	<p><i>Clarification:</i> Draft timelines should be developed within the REGDOC 1.2 series. It is understood that such a project and licencing phase(s) will take considerable time, but these timelines should be recognized in the regulatory framework for use in the business case development and to raise awareness for an organization preparing to make an application.</p> <p><i>Proposed change:</i> Consider consulting with NRCan and the mining industry.</p>	Canadian Environmental Law Association, Concerned Citizens of Renfrew County and Area, Northwatch, Nuclear Waste Watch, Protect Our Waterways – No Nuclear Waste, Sierra Club of Canada Foundation, We the Nuclear Free North	<p>- We agree that there should be a clear setting out of timelines and intersects between the various activities which are subject of REGDOC 1.2 series</p> <p>- The use of this timeline for “business case development” is unclear; does the industry anticipate multiple applicants, including private sector proponents?</p> <p>- We reject the suggestion that the CNSC should specifically consult with NRCan and the mining industry on this point; the process for developing the</p>	<p>The timelines for reviewing a licence to prepare site for a DGR are outlined in section. 8.2 of the <i>Class I Nuclear Facilities Regulations</i>. Guidance on these timelines is available in section 8 and Appendix B of REGDOC-3.5.1, <i>Licensing Process for Class I Nuclear Facilities and Uranium Mines and Mills</i>.</p> <p>With many decades of experience regulating the uranium mining industry, CNSC’s in-house expertise may be helpful for proponents wishing to engage early and seek clarity on regulatory expectations associated with a given activity. No change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
					REGDOCs should be open and transparent, and if NRCan and/or the mining industry are to contribute to it, they should do so through the same avenue as the public, Indigenous peoples, and the nuclear industry; if input is provided outside of this current process it should be posted in the same manner as the comments received as part of this process	
44.	Alexandra Franche	3.5	-What is the design of the DGR? It feels like the design was not presented at the first stages of the approval process for the people to get a clear idea of what is to be expected while giving consent and determining what is considered safe. Will there be a chimney to allow an airflow? Will that allow nuclear particles to escapes into the surrounding air if some are released into the repository? It contaminates the air, the earth, the water, the food chain... us.			See response to comment #46.
45.	Alexandra Franche	3.9 Environmental protection	-By having deep ground repositories for our nuclear waste we have no way of ensuring that our underwater sources of water are not contaminated in years to come. Ontario has a network of complex groundwater tables and aquifer that feeds into our lakes and rivers. We have the world's largest source of fresh water and we are about to carelessly contaminate it for our generation and all future ones to come. We need to safeguard water.			See response to comment #52.
46.	Alexandra Franche	2.1 Overview of site prep	-The sites that have been selected for DGRs are quite a distance away from the nuclear centrals and the nuclear waste will travels kilometres and kilometres by trucks right next to our homes, our families in our cars, lakes and rivers, schools, agricultural fields, forests and everything else we hold dear and pay for through our taxes and hard-earned money. If anything should happen, and it's a question of time before it will, the taxpayers will be left with the bill of the cleanup and consequences to their health, lives, economy and environment to name a few. It is dangerous. We should leave nuclear waste closer to where it is produced, but further away from the great lakes and our fresh drinking water in an above ground facility that is reinforced so that it is protected against flooding/climate impacts and terror attacks.			The NWMO is responsible for safely managing Canada's used nuclear fuel over the long term, which includes finding a site and selecting a facility design that will respect Canada's legal requirements for protecting people and the environment. The CNSC would use the information contained in REGDOC-1.2.3 to assess the NWMO's application to prepare a site for their DGR project. Any comments that relate to the specifics of any DGR application are out of scope for the revision of this REGDOC. No change was made.

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
49.	Dr. Sandy Greer	3.3 Operating performance	<p>It is not good enough for the CNSC to make demands on the NWMO to deliver information which it identifies within this section of the draft guide for 'Site Preparation,' and fully allow the NWMO to reach out to communities to determine site selection without telling such communities all of these details prior to site selection.</p> <p>But doing so, in truth, would expose even more so what the NWMO does not yet know nor may ever be able to figure out - and be able to show the evidence.</p> <p>For example, see under Draft 3.3 on PDF page 13, this specific requirement:</p> <p>"outline the strategy that the applicant will take, including development of mitigation measures, upon discovery of additional risks to the health and safety of the public that were not anticipated during the licence application process"</p> <p>Such a request surely is within the realm of conjecture. For starters, even if such mitigation measures were being developed, there absolutely would be no proof that they could be effective. This type of requirement treats the community members who live in proximity of a proposed DGR as if they are fools. Sadly, the actual fools are the municipal councils who see only the money being offered, rather than the sacrifice of clean water pathways and food security for the future generations.</p> <p>Next, under Draft 3.3 on the same page is a more down-to-earth request, to list hazards which include: noise from blasting (etc.); chemical; mechanical from excavation (etc.), dust from overburden and rock removal (etc.), and more.</p> <p>But, a major shortcoming of 'Site Preparation' - related to Site Characterization -appears not to have improved since the previous proposal by Ontario Power Generation, Inc. related to its proposed low-and-intermediate level DGR. Such impact estimations are limited only to the site perimeters, but totally neglect to include the impacts on the wider region in regard - just as one example - the need to transport a huge amount of gravel and sand to construct the DGR shaft as well as the tunnels over a long period of time, with various environmental and social impacts from widening roads, regular traffic of gravel trucks, and related negative impacts upon neighbouring farmlands and the surrounding ecosystems.</p> <p>For the above reason alone - the lack of responsibility and essential safeguarding to the larger region by the proponent, where socially and environmental and negative</p>			<p>Protection of the environment is a paramount concern for the CNSC. The analysis that will have to be undertaken to understand the environmental impact of any facility is just not limited to the facility boundary. Broader environmental concerns are also accounted for. Additionally, the broader socio-economic concerns mentioned are not within the scope of the CNSC however are in the scope of the Impact Assessment Act and said analysis will occur in the Joint Impact Assessment. No change was made.</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			impacts are inevitable, as per the broader land-based way of life which contributes food security (whether farming in midwestern Ontario or wildlife in northern Ontario) - is totally unacceptable. Rural and remote ways of life ought not to be treated as dispensable, nor the natural environment be treated merely as collateral damage. Doing so is unconscionable.			
52.	Mississaugas of Scugog Island First Nation (MSIFN)	3.3 Operating performance	<p><u>Section 3.3</u> of the REGDOC lists risks to the health and safety of the public in the site preparation phase. The list includes noise, chemical, mechanical, electrical, and dust hazards. An applicant is meant to assess possible risks to the health and safety of workers and the public including accidents and malfunctions that could occur during site preparation activities.</p> <p><i>Proposed change:</i> The list of risks to health and safety of the public does not include potential risks to groundwater. Given the depth of a DGR (<500 metres below the ground's surface, NWMO 2021) impacts to groundwater flow and potential contamination should be considered, including groundwater-surface water interactions. Does the CNSC not anticipate impacts to groundwater from the DGR, or does the site preparation stage not include below surface activities?</p>			<p>Given that site preparation stage does not include below surface activities, this comment is out of scope for section 3.3 of REGDOC 1.2.3. However, ensuring that groundwater is protected will be a key part of CNSC staff's evaluation of any DGR facility proposal – and those requirements are identified in REGDOC 1.2.3.</p> <p>The safety case for disposal requires that nuclear waste is both isolated and contained. Multiple lines of evidence are needed to demonstrate both of these functions. This includes extensive information about the site – the geology (rock types, fracture characteristics, and more), hydrogeology – including groundwater characteristics, and it also includes extensive information about engineered barriers.</p> <p>Staff's assessment of information submitted in support of a site preparation licence will include an evaluation of the substantive information required to demonstrate that groundwater and surface water protection is ensured. Key references cited in REGDOC-1.2.3 include REGDOC 2.9.1, REGDOC 2.11.1 volumes 1 and III and REGDOC 1.2.1.</p> <p>No change was made.</p>
55.	Mississaugas of Scugog Island First Nation (MSIFN)	3.1 Management system	<p><u>Section 3.1</u> of the REGDOC lists the requirements for an applicant of a license to have a management system in place meant to outline processes and procedures that have been/will be put in place to protect health, safety, security, and the environment. The management system must have a description of the organizational management structure for the applicant's site preparation work activities, including procurement and ensuring technical knowledge at the staffing level is adequate to meet nuclear safety management needs.</p> <p><i>Proposed change:</i> We recommend including Indigenous procurement and Indigenous education and training</p>			<p>Licence application guides, such as REGDOC-1.2.3, point to existing requirements and guidance in Canada's regulatory environment. The suggestions made are outside of the existing framework, and as such will be saved for future consideration.</p> <p>REGDOC-1.2.3 identifies the following when it comes to procurement (1) and training (2):</p> <ul style="list-style-type: none">For the licenced activities, the applicant shall meet CSA N286-12 clause 9 5. Provisions for purchasing requirements are specified in clause 9.5.2. It is up to the applicant/licensee to select the suppliers as per requirements in CSA N286-12. <p>Regarding training for licence activities, clause 4.5.2 of N286-12 is a generic clause applicable to all nuclear facilities. As per this</p>

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			relevant to whichever geographical location is chosen within the management system. There is a high probability that wherever a site is selected for the DGR site it will be within the Traditional and/or Treaty Territory of a First Nation in Canada. It is important, and becoming customary, to include Indigenous procurement policies in the early stages of planning for major projects. It is also important that First Nations be properly consulted on a potential DGR, and to do so appropriately the staff of whichever organization is chosen should be adequately trained and educated on Indigenous rights and interests, and best practices for Indigenous procurement.			clause, workers shall be competent and “training shall be systematically developed and implemented so that the required qualification is achieved and maintained.” It is up to the applicant/licensee to establish, document and implement the necessary training to meet the requirements
63.	Northwatch	3 Regulatory requirement and guidance	the subsection on management systems identifies that the applicant's management system must include procedures to control the effectiveness of assessments and engineering activities performed in the different stages of the site evaluation process, including records of all work carried out during site evaluation and characterization, which must include a description of the measures for preservation of the records but fails to identify how these records will be added to the public record and made available to the public for review, scrutiny and considering during various licencing, review, and permitting processes and for the more general purpose of public oversight and community information			See response to comment #64.
64.	Northwatch	3 Regulatory requirement and guidance	the subsection on management systems identifies that the applicant's management system must include documentation on the results of studies, including models and simulations, and investigations in sufficient detail to permit independent review but fails to identify how these records will be added to the public record and made available to the public for review, scrutiny and considering during various licencing, review, and permitting processes and for the more general purpose of public oversight and community information			The records to be produced as a result of studies, including models and simulations, and investigations must be submitted as part of an application to prepare site for a DGR, and would form the licensing basis, as defined in section 6.1.1 of REGDOC-3.5.3. Those documents are needed for CNSC staff to conclude that the applicant is qualified to carry out the licensed activity, and that appropriate provisions are in place to protect the health and safety of Canadians and the environment. The CNSC shares key documents with the public as part of the licensing process, but our current requirements do not obligate applicants to disclose management system documentation to the public. This comment will be saved for future consideration.
111.	Sam Arnold	0 General	Please allow me to voice my concerns about this process and my opposition to the creation of a Deep Geological Repository (DGR) in either designated location under			See response to comments #2 and #52.

No.	Reviewer	Section	Reviewer’s Comment	Feedback commenter	Feedback comment	CNSC response
	Sustainable Energy Group		<p>consideration in Ontario. My concerns include the following:</p> <p>1. As Mississaugas of Scugog Island First Nation pointed out, "The list of risks to health and safety of the public does not include potential risks to groundwater." The protection of ground water is essential — especially so to Indigenous people — and must not be contaminated by blasting rock in creating a nuclear tomb 500 meters underground, burying highly radioactive nuclear waste for many thousands of years, and then permanently sealing it. The likelihood of groundwater becoming contaminated by a DGR over time is certain, and probably within only a few hundred years. Copper does corrode and bentonite is not a pemanent seal. Neither is rock that is susceptible to geological movement. DGRs are not a reliable or affordable solution.</p> <p>2. Transporting nuclear waste from New Brunswick, Quebec and Ontario to the DGR site is another highly questionable risk. It is unthinkable to allow this to happen, as both the risk of accidents and the enormous cost involved makes this concept ludicrous.</p> <p>3. Nuclear waste needs to stay where it is now, near the power plants that produced it. There it can be repackaged most safely and least expensively as required until a proper and affordable solution can be found. The same is true for the medium-level nuclear waste. Most of that waste can be stored with the nuclear reactors when they are decommissioned.</p> <p>4. Small Modular Nuclear Reactors (SMNRs) are not a solution to the climate emergency that is already getting out of control. This latest nuclear technology is no more than a Hail Mary pass from a desparate dying industry trying to survive. SMNRs are uneconomical and are not needed to meet our energy requirements as they will be too late, too costly, and are likely to fail. Efficiency and renewable energy, especially wind and solar, is where funding needs to go. SMNRs are not now, and never will never will be, economically competitive with renewable energy, including hydro.</p> <p>5. As well, nuclear proliferation is an additional risk created by the nuclear industry through the creation of plutonium in reactors. This is truly worrisome and must end before a military or terrorist disaster occurs. The threat of a nuclear war is now the highest it’s ever been,</p>			

No.	Reviewer	Section	Reviewer's Comment	Feedback commenter	Feedback comment	CNSC response
			thanks to Russia, North Korea, Iran, and other countries, including the United States. Finally and importantly, the climate emergency demands immediate and effective action with responsible stewardship. Nuclear has no place in mitigating the climate crisis. This needs to be accepted now, so we can tackle the climate emergency quickly and most effectively			
112.	Gretchen Fitzgerald Sierra Club Foundation	0 General	See edoc 7061878			The purpose of the public consultation is to gather input on the content of REGDOC-1.2.3, which relates to site preparation for a deep geological repository. This submission addresses a specific near surface disposal application and is not applicable to this consultation. No change was made.
113.	Alexandra Franche	0 General	I have not been able to read all submissions, but I agree with comments submitted by: Northwatch, by Bill Noll, Vice Chair of Protect our Waterways No Nuclear Waste (POW), and by Dr. Sandy Greer. We must stop producing nuclear waste and contain the tons we have indefinitely, safely. DGRs as presented are not a viable solution			See response to comment #2.
114.	Northwatch	n.a.	Dr. Rhodes proposes that the notion of a deep geological repository be replaced by used CANDU fuel reprocessing, and that such reprocessing take place at a location in western Canada proposed by Dr. Rhodes. Northwatch's feedback on this is that reprocessing is not a viable alternative to the long term isolation of nuclear waste from the environment (which a DGR is purported to do but is unproven as a means of achieving this) because a) reprocessing increases and diversifies high level nuclear waste, exacerbating the problem rather than solving it, b) reprocessing has additional weapons proliferation risk, c) reprocessing is a technical difficult and environmental contaminating activity, and d) transporting the wastes thousands of kilometres is not environmentally or fiscally responsible. Dr. Rhodes provides little to no comment on the draft regulatory document.			The policies on reprocessing used nuclear fuel falls under the mandate of Natural Resources Canada, which is outlined in the recently released Canada's Policy for Radioactive Waste Management and Decommissioning . No change was made.