

Public Consultation
Draft REGDOC-1.1.2, Licence Application Guide: Licence to Construct a Reactor Facility, Version 2

Comments: October 2020 to January 13, 2021; **Feedback on comments:** January 14 to February 16, 2021

The CNSC received 88 distinct comments from 5 stakeholders. Some of the comments have been consolidated into “themes”. All individual comments are included in their entirety in the various tables below.

Table A: Comments on Request for Information

	Reviewer	Section or Para.	Reviewer’s Comment and Proposed Change
•	No comments specific to the Request for Information were received.		

Table B: Comments on draft REGDOC-1.1.2, Licence Application Guide: Licence to Construct a Reactor Facility, Version 2 (all original comments; no “feedback on comments” was received)

	Reviewer	Section or Para.	Reviewer’s Comment and Proposed Change
1.	Request extracted from an individual comment (all comments are shown in their entirety in the tables below).		Given the importance of an application guide for all reactor types, licensees strongly urge the CNSC to conduct a workshop with all interested stakeholders to better understand applicants’ needs and align this early draft with information in REGDOC-1.1.5., Supplemental Information for Small Modular Reactor Proponents.
2.	Comments extracted from other individual comments.		<p>Large portions of many SCA sections or even entire sections of this draft REGDOC-1.1.2 (Licence to Construct, LTC) are identical with the corresponding sections of REGDOC-1.1.3 (Licence to Operate, LTO), even if some qualifiers are included in the introductory portion of the sections specifying that the application is for construction activities including fuel-out commissioning.</p> <p>[Certain sections are] identical with the corresponding section from REGDOC-1.1.3. Therefore, it is not clear if the CNSC’s expectations are identical for the two licence applications or, if different, what the differences would be. Clarification is needed on whether the scope would be limited for this phase and to extract the rest of the requirements from the current text.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
3.	Consolidated theme from individual comments (which are shown in their entirety in Table C, below).		<p>As Canada looks to emerging technologies, such as Small Modular Reactors (SMR), to meet its future energy and environmental challenges, there is a pressing need for a contextual, up-to-date licence application guide to construct reactor facilities of all types. As currently written, this draft REGDOC does not meet that need.</p> <p>Many SMR designs have enhanced safety features in addition to those of traditional reactor designs. Consequently, their risk profile is even further reduced. Regulatory requirements stipulated for such advanced reactor designs need to take these enhancements into consideration. Unless that difference is reflected in an application guide, Canada's ability to encourage new reactor proponents and attract necessary financial investment will be inappropriately impacted.</p> <p>Unlike other recently-issued REGDOCs, the use of a "risk-informed graded approach" is barely mentioned in this draft. Though referenced in REGDOC-1.1.5, the concept of a risk-informed graded approach is particularly important for emerging technologies such as SMRs and should be more explicitly stated at the beginning of this REGDOC.</p> <p>The regulatory framework should not restrict innovation. Specifically, innovative new nuclear technologies may not meet the proscriptive requirements in the REGDOC framework</p> <p>An inability to apply concepts/requirements outlined in this REGDOC in a risk informed graded approach will likely preclude small/micro SMRs from being deployed by proponents other than existing large nuclear utilities. This will, in effect, stop any potential SMR deployment, particularly at the smaller end of the spectrum and put Canada's ability to capitalize on first-mover advantage at risk as outlined in the SMR Roadmap.</p> <p>In an extreme example, if the licence application guide indicates that the application "shall" comply with a specific REGDOC, but the applicant proposes to use new technology that cannot meet all the requirements of that REGDOC, then an applicant may make a business decision not to proceed with the entire project.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
4.	Consolidated theme from individual comments (which are shown in their entirety in Table D, below).		<p>The draft REGDOC mixes requirements (“shall” statements) that have a basis under the NSCA with expectations (“should” statements) that have no basis under the NSCA. For example, the draft REGDOC states “the applicant shall describe how their proposed public information and disclosure program... meets the requirements in REGDOC-3.2.1.” While submission of a proposed public information and disclosure program is indeed a statutory requirement (a “shall” statement is appropriate), the requirement to meet REGDOC-3.2.1 is not a statutory requirement. In other words, this sentence has mixed statutory requirements with general expectations. Accordingly, all statements that mix requirements (“shall”) with expectations (“should”) must be rewritten to clearly delineate requirements from expectations.</p> <p>The intent of this comment is to note that the REGDOC cannot and should not create [additional] requirements [...], beyond any requirement specified in the NSCA. Accordingly, this statement must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Review and revise the REGDOC to eliminate “shall” statements that are not fully aligned with the statutory requirements under the NSCA. Where those statements go beyond the requirements of the NSCA, they should be rewritten as guidance, not requirements. Specific examples of these statements are identified in [other comments].</p> <p>MAJOR Impact on Industry: In order for the overall regulatory framework to not unduly burden business decisions, it is absolutely critical to clearly distinguish statutory requirements (“shall” statements) from general expectations (“should” statements).</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
5.	Consolidated theme from individual comments (which are shown in their entirety in Table E, below).		<p>Licensees believe [some of the information in this draft] is not appropriate guidance at [the construction] phase of a potential project.</p> <p>It is important to maintain a clear distinction between requirements and guidance in all aspects of the regulatory framework. [...] this draft does not seem to recognize these are construction projects not ongoing operations.</p> <p>The level of detail expected in this section is unrealistic at time of licence to construct application. ...It is unlikely the requested detail will be finalized at the time of a licence to construct application.</p> <p>This is overly broad at this phase of a potential project. A proponent's inability to provide requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delays to projects.</p> <p>Licensees believe [certain sections] do not belong in a licence to construct. These are more appropriate during licence renewals, or licences to operate. The REGDOC is asking for information that would not exist for first constructors.</p> <p>Firsttime constructors cannot be required to submit information that will not exist.</p> <p>Without [the requested] guidance and clarification, it is left to the applicant to interpret, which most likely would lead to unnecessary and inefficient iterations between the applicant and the CNSC. See also further detailed and specific comments on this aspect [see Table E for all individual comments related to this theme].</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
6.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 1.5, CNSC contact information	<p>The REGDOC says the “licensing process is initiated when the applicant submits a licence application” but also states that “early engagement with CNSC staff is encouraged.” It is not clear what is meant by early engagement. Specifically, are potential applicants encouraged to engage with CNSC staff prior to the submission of the application, or should potential applicants wait until the application is submitted and the licensing process is initiated?</p> <p>In fact, the statement is inconsistent with subsequent text. Section 2.5 states that the CNSC will provide the applicant with appropriate versions of relevant REGDOCs. This could only be done if the licensing process begins before submission of the application. Additionally, Section 4.13.1 notes that the applicant is encouraged to contact the CNSC “before” submission of the application. Finally, REGDOC-3.5.1 also recommends communication with the CNSC prior to submission of an application. This REGDOC should clearly recommend contacting the CNSC prior to submission of the application. For example, it may be helpful to recommend submission of a formal letter of intent to the Secretariat. This would also allow CNSC staff to plan their review activities.</p> <p>Suggested Change: Revise Section 1.5 to read, 'the applicant should contact the CNSC prior to formal submission of the application.'</p> <p>MAJOR Impact on Industry: "The clarification would likely benefit applicants as well as CNSC staff. Early engagement—meaning prior to submission of the application—will increase the likelihood of a successful application, and will allow the CNSC to manage and deploy resources appropriately.</p> <p>Additionally, it would give the CNSC an opportunity to provide expectations in advance of receipt of an application (for example, a more current and site-specific listing of “other matters of regulatory interest”).</p> <p>The clarification would also benefit new entrants to the industry (for example, companies that may wish to apply for a combined site preparation/construction licence and do not have contacts at the CNSC as per an existing site preparation licence).</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
7.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 2.0, Licensing Basis, Process and Submission and 2.1, Background	<p>As currently written:</p> <ol style="list-style-type: none"> 1. The document does not clearly express that many aspects of the construction and the future operation of a reactor facility are dependent on the intended location and other external factors. 2. The passage, "Licenses can be combined to permit multiple activities. The applicant shall address all regulatory requirements pertaining to each stage of the reactor facility's lifecycle in the licence application" is unclear. <p>Suggested Change: For clarity, the document should:</p> <ol style="list-style-type: none"> 1. State if the application for a licence to construct must be preceded by or combined with any other licence applications, or if any endorsements by the Commission are required prior its submission (e.g., licence to prepare a site for new reactor facilities). 2. Clarify whether the 2nd paragraph means: <ol style="list-style-type: none"> a) requirements for all stages of the facility's lifecycle shall be addressed in this application, or b) Only the regulatory requirements for the lifecycle stages covered by the current licence being applied for need to be addressed. <p>MAJOR Impact on Industry: Clarity will allow for a more efficient licence application process and minimize financial burden for potential proponents.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
8.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.3, Licensing process	<p>The REGDOC says the “licensing process is initiated when the applicant submits a licence application” but also states that “early engagement with CNSC staff is encouraged.” It is not clear what is meant by early engagement. Specifically, are potential applicants encouraged to engage with CNSC staff prior to the submission of the application, or should potential applicants wait until the application is submitted and the licensing process is initiated?</p> <p>In fact, the statement is inconsistent with subsequent text. Section 2.5 states that the CNSC will provide the applicant with appropriate versions of relevant REGDOCs. This could only be done if the licensing process begins before submission of the application. Additionally, Section 4.13.1 notes that the applicant is encouraged to contact the CNSC “before” submission of the application. Finally, REGDOC-3.5.1 also recommends communication with the CNSC prior to submission of an application. This REGDOC should clearly recommend contacting the CNSC prior to submission of the application. For example, it may be helpful to recommend submission of a formal letter of intent to the Secretariat. This would also allow CNSC staff to plan their review activities.</p> <p>Suggested Change: Revise section 2.3 to read: 'Engagement with CNSC staff prior to formal submission of the application is encouraged. If the applicant does not have an existing CNSC licence (and associated contact information), the applicant should submit a formal letter of intent submitted to the Secretariat in advance of preparation of the application.'</p> <p>MAJOR Impact on Industry: The clarification would likely benefit applicants as well as CNSC staff. Early engagement—meaning prior to submission of the application—will increase the likelihood of a successful application, and will allow the CNSC to manage and deploy resources appropriately.</p> <p>Additionally, it would give the CNSC an opportunity to provide expectations in advance of receipt of an application (for example, a more current and site-specific listing of “other matters of regulatory interest”).</p> <p>The clarification would also benefit new entrants to the industry (for example, companies that may wish to apply for a combined site preparation/construction licence and do not have contacts at the CNSC as per an existing site preparation licence).</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
9.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.3, Licensing process and Section 2.5, Completing the license application	<p>The REGDOC says the CNSC will provide the applicant with appropriate versions of relevant REGDOCs. This is inconsistent with the statement in Section 2.3 that states the licensing process begins with submission of the application. Additionally, this is inconsistent with the philosophy that the applicant is free to meet statutory requirements through alternative means, and REGDOCs are not statutory requirements unless and until they are cited by a licence under the NSCA.</p> <p>Also, licensees seek additional clarity on the passage in 2.5 which reads, “Early in the licensing process, the CNSC will provide the applicant with the appropriate version (publication date and revision number) of each document to be cited through supplemental Guidance.” At what point in the process will this information be provided? Given the level of effort needed to carry out a compliance review and for licence application preparation, early access to this information is critical.</p> <p>Suggested Change: Clarify both Section 2.3 and Section 2.5 to note (a) the applicant may request guidance from the CNSC prior to submission of the application, (b) if requested, the CNSC may provide REGDOCs that would typically be expected to form part of the facility’s licensing basis, and—critically—(c) the applicant is free to propose alternatives.</p> <p>Also, define the starting point of the licensing process. Clarity in process will minimize misalignment in expectations and compliance criteria.</p> <p>MAJOR Impact on Industry: It is important to clarify both the process and the philosophy. With respect to process, this REGDOC does not make clear that engagement with the CNSC prior to the application is a key element of the licensing process. An applicant who waits until submission of the application before engaging with the CNSC may place their overall project scope and schedule at risk.</p> <p>This identical comment was submitted for sections 2.3 and 2.5.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
10.	Global First Power	Section 2.3, Licensing process	<p>'...the CNSC may request additional information by sending supplemental, facility-specific guidance to the applicant prior to the beginning of the licensing process.'</p> <p>Since the formal licensing process starts with the application, it is not clear under what process and on what basis this 'additional information' request and 'facility-specific guidance' will be developed and sent by the CNSC to the applicant. (Until an application is submitted, there is no applicant, only a proponent).</p> <p>Section 3.1, Para 1 of REGDOC-3.5.1 is very vague on this subject and does not provide any details of such process. The only other process that may be better described is in REGDOC-1.1.5, section 4.2.1. However, it is limited to SMRs with novel technologies preparing for Licence to Prepare Site applications. Moreover, that process seems to focus on application assessment strategies rather than on 'facility-specific guidance.'</p> <p>Suggested Change: CNSC to clarify the process by which 'the CNSC may request additional information by sending supplemental, facility-specific guidance to the applicant prior to the beginning of the licensing process.'</p>
11.	Global First Power	Section 2.3, Licensing process	<p>'Note: The information provided in this document does not prevent applicants from proposing alternatives ways to meet a requirement. However, any proposed alternative should appropriately reflect the complexities and hazards of the proposed activities, and should must be demonstrated by supporting information.'</p> <p>This note may be better suited to be included with the note from Section 1.3.</p> <p>Suggested Change: Consider re-locating note to Section 1.3.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
12.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.5, Completing the licence application	<p>Licenseses have significant concerns with the following passages:</p> <ol style="list-style-type: none"> 1. The REGDOC says the applicant “shall” submit improvement plans and “shall” identify standards to be met. Additionally, it says the applicant “shall” provide a performance assessment. The mandatory “shall” does not have a statutory basis. Unless REGDOC-1.1.2 is cited in a licence, the “shall” has no weight in this context 2. More importantly, improvement plans and performance assessments do not belong in a licence to construct. These are more appropriate during licence renewals, or licences to operate. The REGDOC is asking for information that would not exist for first constructors³. The need to cite 'other' codes and standards as per the 1st sentence of the 2nd paragraph should be clarified. Codes and standards are not regulatory documents, per se. <p>Suggested Change: CNSC staff is urged to:</p> <ol style="list-style-type: none"> 1. Either remove the references to improvement plans and performance assessments or note that, in the case of a licence renewal, 'the applicant should submit improvement plans' and where changes are planned, 'the applicant should identify the standard to be met.' 2. Correct Section 2.5 to note that, in the case of a licence renewal, 'the applicant should provide a statement of performance assessment where warranted.' 3. Amend the 1st sentence of the 2nd paragraph to read, 'The application should cite CNSC regulatory documents, and other codes and standards that will govern program objectives that demonstrate the applicant's ability to implement the safety and control measures.' <p>MAJOR Impact on Industry: It is important to maintain a clear distinction between requirements and guidance in all aspects of the regulatory framework. By citing items like improvement plans and performance assessments, this draft does not seem to recognize these are construction projects not ongoing operations. Firsttime constructors cannot be required to submit information that will not exist. A requirement to submit an improvement plan, if not warranted, will result in unnecessary project work.</p>

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13.	Global First Power	Section 2.5, Completing the licence application	<p>'Appendix C provides a sample format for applicants to map their supporting documents to the SCA framework.'</p> <p>Appendix D provides the format for mapping not Appendix C."</p> <p>Suggested Change: Typo – Appendix C should be Appendix D.</p>
14.	Global First Power	Section 2.5, Completing the licence application	<p>'The applicant may provide cross-references to detailed information in other sections as appropriate.'</p> <p>In the context of paragraph 1 of Section 2.5, it is not clear what is meant by 'in other sections' since in previous section 2.4 CNSC stated 'The applicant may choose to organize the information in any structure.'</p> <p>Suggested Change: Suggest '...in other sections...' is replaced by '...in other application materials...'</p>
15.	Global First Power	Section 2.5, Completing the licence application	<p>'The application should cite CNSC regulatory documents, and other codes and standards.'</p> <p>The CNSC regulatory documents are not codes, nor standards, thus the word 'other' is not appropriate.</p> <p>Suggested Change: Re-word</p>
16.	Global First Power	Section 2.5, Completing the licence application	<p>'Note: If the document version in the supporting information has changed, the applicant must provide the CNSC with the new version number and a revised copy of the document.'</p> <p>It is suggested CNSC also require that the applicant to provide a summary of major changes between the new document version and the version that CNSC staff has previously reviewed. This is to focus CNSC's staff review on what was not previously already reviewed, rather than re-reviewing the same (and entire) material.</p> <p>Suggested Change: Re-word</p> <p>MAJOR Impact on Industry: Subsequent regulatory reviews should focus on the changes in the revisions where appropriate and not re-visit all previously submitted and reviewed material. Reviewing all material beyond the identified major changes will cause delays in licensing progression and potentially re-visit previously agreed upon conclusions.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
17.	Global First Power	Section 2.5, Completing the licence application	<p>These sections do not seem to allow for a partial application for a Licence to Construct, similar to REGDOC-1.1.1 that allows for a partial licence to prepare site application.</p> <p>Suggested Change: It is suggested a partial application for LTC is allowed under REGDOC-1.1.2. This would allow flexibility to both the applicant when preparing documentation and to the CNSC staff when reviewing documentation. This is especially useful if the review of the entire scope of the application by CNSC staff is not expected to be done in parallel all at the same time.</p> <p>MAJOR Impact on Industry: A proponent's inability to provide all requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delays to projects. Partial application similar to REGDOC 1.1.1 provides for a staged release of submittal packages and better reflects the reality of project progression.</p> <p>This identical comment was also submitted for section 2.6.</p>
18.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.6, Submitting the licence application	<p>The REGDOC notes that applicants are encouraged to submit applications electronically, but provides no email or web address for that purpose.</p> <p>Suggested Change: Provide an email address or web address to permit electronic submission.</p> <p>Request for clarification</p>
19.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.6, Submitting the licence application	<p>The Treasury Board Secretariat Policy on Government Security (effective July 1, 2019) was reviewed. This policy does not provide 'guidance for the protection and transmission of prescribed information.'</p> <p>Suggested Change: Remove the reference to the Policy on Government Security.</p> <p>Request for clarification</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
20.	Global First Power	Section 2.6, Submitting the licence application	<p>These sections do not seem to allow for a partial application for a Licence to Construct, similar to REGDOC-1.1.1 that allows for a partial licence to prepare site application.</p> <p>Suggested Change: It is suggested a partial application for LTC is allowed under REGDOC-1.1.2. This would allow flexibility to both the applicant when preparing documentation and to the CNSC staff when reviewing documentation. This is especially useful if the review of the entire scope of the application by CNSC staff is not expected to be done in parallel all at the same time.</p> <p>MAJOR Impact on Industry: A proponent's inability to provide all requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delays to projects. Partial application similar to REGDOC 1.1.1 provides for a staged release of submittal packages and better reflects the reality of project progression.</p> <p>This identical comment was also submitted for section 2.5.</p>
21.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 3.1.2, Mailing address and 3.1.3, All persons who...	<p>The REGDOC says applicants "should provide a list of names ... of all persons authorized by the applicant to interact with the CNSC." The REGDOC further recommends that the information is subject to confidentiality requirements.</p> <p>Unless the draft REGDOC intends the word interact to mean act for the applicant, this is likely to be a very broad list. Even if the two are intended to be synonymous, it is unlikely that a list of names, positions, and contact information would be subject to exemption from release under the Access to Information Act. Instead, this information should not be provided.</p> <p>It is unclear why this information should be submitted with an application, addressed to the Secretariat. Licensees acknowledge and support the practices of informal contact between CNSC staff and applicants/licensees, but note that this interaction may be in support of an application and need not be supplied directly to the Secretariat (and public) as part of an application.</p> <p>Suggested Change: Remove the following paragraph: 'The applicant should provide a list of names, positions and contact information ... subject to confidentiality requirements.'</p> <p>Alternatively, change 'interact' to 'act for the applicant.'</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
22.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 3.1.4, Proof of legal status and 3.1.5, Evidence that the applicant is...	<p>The REGDOC says applicants should provide revised proof of legal status if an organization wishing to renew a licence has had a change of name. This guidance may be inconsistent with the NSCA. If an organization changes its name, would that new organization be licensed under the NSCA? It is industry's understanding that a transfer of licence would be required. As such, proof of legal status should presumably be provided when applying to transfer a licence, not when renewing a licence.</p> <p>Suggested Change: Remove the sentence: 'When submitting an application to renew a licence... organization name has changed.'</p>
23.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 3.2.3, Description of site, 3.2.4, Description of the facility's existing licensing status and 3.2.5, Nuclear and hazardous substances	<p>Pursuant to the Class I NFR, Section 3, the REGDOC correctly notes that the application "shall" contain the name of any hazardous substance that may be on the site. This requirement is extremely broad and challenging to apply. Specifically, what is a hazardous substance? While Section 1 provides a definition, it is not adequate from the perspective of technical staff who must understand this requirement and prepare a complete application. Note that a complete list may be impossible to generate in advance, given the wide variety of activities required during construction.</p> <p>Suggested Change: Add guidance to Section 3.2.5 to more clearly define the scope of hazardous substances.</p> <p>MAJOR Impact on Industry: The CNSC has the opportunity to clarify a particularly vexing issue that is encountered regularly by the industry. (While the REGDOC focuses specifically on applications to construct a nuclear facility, the same requirement applies to applications to renew licences for existing facilities.) Guidance would be particularly appreciated as technical staff will be required to wrestle with this issue when preparing a future licence to construct (or similarly, when preparing licence renewals).</p>

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24.	Global First Power	Sections 3.2.3, Description of site, 3.2.4, Description of the facility's existing licensing status and 3.2.5, Nuclear and hazardous substances	(for section 3.2.3): Is inner area and vital area defined somewhere, they are not included in the glossary of this REGDOC? Requesting clarification on the definitions for inner and vital areas.
25.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 3.3: 3.3.1, Certificates and other licences, 3.3.2, Similar facilities and 3.3.3, Supporting information	The heading of this section refers to 'certificates.' However, the content of the section makes no reference to certificates. Suggested Change: Remove 'certificates' from the heading of Section 3.3.1.

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
26.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 3.3: 3.3.1, Certificates and other licences, 3.3.2, Similar facilities and 3.3.3, Supporting information	<p>The content of this section does not specify whether the supporting information is required or recommended. In order to prepare a complete application that meets statutory requirements, it is critical to specify “shall”, “should”, or “may”, as applicable. Please note that this information is likely to be mandatory, pursuant to GNSCR, Section 3(1)(i).</p> <p>Also, a word may be missing from the second bullet: 'Supporting information includes: ... those [???] that have been submitted to, received from, or published by a foreign national regulatory body.' This statement appears to be fragmentary and needs to be revised for clarity.</p> <p>Suggested Change: Revise Section 3.3.3 to note that “supporting information shall be included, including the results of experimental programs, tests or analyses ...”</p> <p>Include the missing word(s) from the 2nd bullet and revise to read: “Supporting information may be included, including those [???] that have been submitted to, received from, or published by a foreign national regulatory body.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
27.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.0, Safety Policies, Programs, Processes, Procedures and Other Safety and Control Measures	<p>The introductory paragraphs are unclear. If read literally, the introductory paragraphs express requirements that are not statutory requirements and should not be included in this REGDOC.</p> <p>The two initial sentences make three separate statements, which are unclear at best. Specifically:</p> <ol style="list-style-type: none"> 1. "The applicant's safety policies [etc] shall address all relevant sections in the NSCA..." On the surface, this appears to state that the applicant shall follow the law. It may be that this statement is intended to mean that the application shall address all relevant sections of the NSCA. As this is the purpose of the licence application guide, such a statement is redundant at best. 2. "[The applicant's safety policies, etc.] shall also address the CNSC's safety and control areas." On the surface, this appears to state that the applicant's management system should address the CNSC's regulatory framework. Other than meeting legal requirements, it is not clear how to do so. Should the management system be structured to align with the CNSC's regulatory framework? Such a requirement would be unduly burdensome. Instead, it is assumed that this statement is intended to mean that the application shall address all CNSC safety and control areas. However, no such requirement exists under the NSCA, and the application guide is intended to provide that structure (as a guide, not a requirement). This statement is redundant at best. 3. "The applicant's policies, programs, [etc] shall also address other matters of regulatory interest." On the surface, this appears to state that the applicant's management system should address the CNSC's regulatory framework. Other than meeting legal requirements, it is not clear how to do so. Should the management system be structured to align with the CNSC's regulatory framework? Such a requirement ("shall") would be unduly burdensome. Instead, it is assumed that this statement is intended to mean that the application shall address other matters of regulatory interest. However, no such requirement exists under the NSCA, and the application guide is intended to provide that structure (as a guide, not a requirement). This statement is redundant at best. <p>Suggested Change: Remove introductory paragraphs) to Section 4 or revise to clarify their intent.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
28.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.0, Safety Policies, Programs, Processes, Procedures and Other Safety and Control Measures	<p>To avoid ambiguity, the subsections of 4.1 and 4.2 must clearly state where the information suggested to be provided has to be relevant to the construction phase or/and to the future commissioning and operation of the plant.</p> <p>Suggested Change: The CNSC is urged to provide rationales, guidance, and examples on what information is to be provided at the various phases of a project including the construction, commissioning and operation stages.</p> <p>MAJOR Impact on Industry: A proponent's inability to provide requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delays to projects.</p>
29.	Global First Power	Section 4.0, Safety Policies, Programs, Processes, Procedures and Other Safety and Control Measures	<p>'The applicant's safety policies, programs, processes, procedures and other safety and control measures shall address all relevant sections in the NSCA and the regulations made under the NSCA (see appendix A), and shall also address the CNSC's safety and control areas (SCA's).'</p> <p>Not all 14 SCA's may be applicable to support a license to construct a reactor facility. Statement is made such that all 14 SCA's must be addressed.</p> <p>Suggested Change: Suggest that this paragraph be reviewed from the perspective of allowing the applicable SCA's to support a LTC phase for Reactor Facility.</p>
30.	Global First Power	Sections 4.1, Management system, 4.1.1, General considerations	<p>'The management system SCA covers the framework that establishes the process and programs required to ensure an organization achieves its safety objectives.....'</p> <p>A management system under this SCA is established to ensure that the business objectives are met through an integrated approach. The business must satisfy the safety objectives as required for an integrated management system, not 'an organization.'</p> <p>Suggested Change: Suggest rewording this paragraph with a focus on the business' rather than an 'organization'.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
31.	Global First Power	Sections 4.1, Management system, 4.1.1, General considerations	'An integrated management system includes health, safety, environment, security, economics, and quality.' The paragraph has limited the management system to health, safety and environment only. Suggested Change: Suggest rewording this paragraph on the bases of an integrated management system applied in the industry.
32.	Global First Power	Sections 4.1, Management system, 4.1.1, General considerations	'The application should also describe the safety policies, the roles of external safety assessment organizations...' It is not clear if the vendor/designer organization performing safety analysis/assessments in support of the licence application will be considered as 'external' to the applicant/operator.
33.	Global First Power	Section 4.1.2, Management system	As a point of clarity, REGDOC 2.1.1 is an 'informational' regulatory document, as opposed to a 'requirement'. Consider rewording this paragraph to clarify that REGDOC 2.1.1 is informational and not a requirement.
34.	Global First Power	Section 4.1.2, Management system	The 1st bullet that states the management system is integrated to the applicant's business purpose and safety culture should be the basis for the management system SCA rather than that as described in section 4.1 above. These 2 statements, that in 4.1 and this bullet are not aligned. Suggested Change: Bullet support the change requested in 4.1 above.
35.	Global First Power	Section 4.1.2, Management system	'The application should describe how the system will address internal and external factors while ensuring that safety is maintained.' It is not clear what it is referred to by 'internal and external factors' in the context of this paragraph and the management system, especially for construction activities.

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
36.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>The REGDOC says an applicant 'shall ensure that, as a contractual obligation, the applicant and the CNSC will have right of access to the premises of any supplier to the construction program.'</p> <p>This requirement (“shall”) is not based on the statutory requirements of the NSCA, and is not relevant to the application. This REGDOC should not—indeed, barring a specific licence condition, cannot— create requirements. There are appropriate times for the future licensee to visit supplier premises. However, this comment is intended to note that such visits are not appropriate for all suppliers. If taken literally, this requirement is unduly burdensome to the future licensee and may interfere with contractual relationships. The requirement for the CNSC to have right of access must be explained further.</p> <p>This comment has already noted that the REGDOC cannot create requirements. Taken literally, this new requirement envisions CNSC access to a wide variety of commercial suppliers, but does not provide context or limitations to the scope of that access. Under the NSCA, CNSC inspectors have wide authority and latitude to conduct inspections related to the mandate of the NSCA. If the proposed site visits fall within the mandate of the NSCA, such contractual obligations would not be necessary. If the proposed site visits do not fall within the mandate of the NSCA, such contractual obligations are not appropriate. Also, the CNSC has no legal mandate outside Canada. Therefore, should a supplier be located outside Canada’s border, this requirement cannot be enforceable.</p> <p>Suggested Change: Remove this statement or change 'shall' to 'should'.</p> <p>MAJOR Impact on Industry: This is an overly broad, unnecessary, and burdensome requirement. As the REGDOC should not, and cannot, create requirements, the statement must at minimum be clarified to reflect guidance, not requirement.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
37.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization; Section 4.4.1	<p>Licenses believe the following do not align with current standards and regulatory guidance:</p> <ul style="list-style-type: none"> • 'maintaining an “intelligent customer” capability for all work that may affect nuclear safety that is carried out on its behalf by any of the Tier 1 (main) contractors and suppliers (that is, engineering, procurement and construction (EPC); engineering, procurement and construction management (EPCM); and project management consultants and contractors (PMC+C)) • ensuring the EPC, EPCM or PMC+C contractor maintains an “intelligent customer” capability for all work carried out by the contractor’s supply chain that may affect nuclear safety; for example, where a Tier 2 contractor (subcontractor) may use its own supply chain to meet the needs of its Tier 1 customer, and will need to procure items or services appropriately'. <p>Suggested Change: The requirements of the intelligent customer need to flow through the supply chain as applicable and should be aligned with CSA N286.</p> <p>MAJOR Impact on Industry: Implementation would cause misalignment with CSA N286, REGDOC-2.1.1 and current industry practices.</p> <p>This identical comment was submitted for sections 4.1.3 and 4.4.1.</p>
38.	Global First Power	Section 4.1.3, Organization	<p>Readiness for operation 'The application should describe the applicant’s management system and organizational arrangements for the transition from construction to commissioning to operation. This transition plan should..'</p> <p>This sentence suggests that the applicant should have a management system for this transition. Recommend rewording this sentence such that the transition period is to be described in the applicant’s management system. This same comment applies to bullets mentioned. All suggest that a separate management system is needed, when in fact, an applicant's overall management system will be able to describe these transition periods.</p> <p>Suggested Change: Reword</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
39.	Global First Power	Section 4.1.3, Organization	<p>'the applicant must provide sufficient information to show that adequate provisions have been made in the design to address readiness for operation'.</p> <p>Since this REGDOC is for a construction licence, should it rather be that 'adequate provisions have been made in the construction phase to address readiness for operation'?</p> <p>Suggested Change: Re-word</p>
40.	Global First Power	Section 4.1.4, Performance assessment, improvement and management review	<p>'...internal self-evaluation program supported by periodic external reviews...'</p> <p>This REGDOC is for the construction phase activities for a project. For SMRs with very short construction schedules, it may not be feasible to have periodic external reviews.</p> <p>Suggested Change: Re-word</p>
41.	Global First Power	Section 4.1.4, Performance assessment, improvement and management review	<p>'The applicant should describe the program.....'</p> <p>Suggest replacing programs with 'processes'. It doesn't need to be a program, a procedure or process can suffice. This comment applies wherever [sic] the term program is used in this section.</p> <p>Suggested Change: Re-word</p>
		Section 4.1.5, Operating experience	<p>Operating experience, paragraph - 'The application should describe how the program...'</p> <p>Same comment as in the previous section, request that this term 'Program' not be used in this section or other sections. Recommended replace is process or procedure.</p> <p>What is meant by 'high quality'? Recommend deleting 'high'.</p> <p>Suggested Change: Re-word</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
		Sections 4.2.2, Human performance program and 4.2.3, Personnel training	<p>Human performance program, and the term “program” in this section.</p> <p>This is general a comment through out this REGDOC, where the term “program” is used for a particular area. In many cases a requirement can be met through a “process” or “procedure” a “program” is not required. Request that in the entire REGDOC the term “program” is replaced with “process” or “procedure” where applicable."</p> <p>Suggested Change: Replace the term “program” with “process” or “procedure” where applicable.</p>
42.	Global First Power	Sections 4.2.2, Human performance program and 4.2.3, Personnel training	<p>'...to remove human performance-related root causes of events.'</p> <p>Removing something, means that the something already exists prior to trying to remove it. If human performance related causes already exist, they cannot be removed. One can “remove” future similar errors, which means the measures to do that will focus on past causes/events."</p> <p>Suggested Change: A more meaningful aim would be '...to prevent human performance-related causes of events.' This means the measures will focus both on past experiences but also on proactive thinking.</p>
43.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.2.4, Personnel certification	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'The application should describe the program and schedule established for the certification of personnel for work relating to fuel-in commissioning and operation of the reactor facility.'</p> <p>References to certified positions and fuel loading in a licence to construct application are misplaced and cause more confusion than clarity.</p> <p>Suggested Change: Remove this section.</p> <p>MAJOR Impact on Industry: This draft does recognize these are construction projects. This creates a large overlap of requirements (redundant) between Construction & Operating licences. As presently written, draft REGDOC-1.1.2 is nearly identical to REGDOC-1.1.3, Licence Application Guide: Licence to Operate a Nuclear Power Plant.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
44.	Global First Power	Section 4.2.6, Work organization and job design	1st paragraph last 2 words, 'systematic analysis'. Clarification is needed on what is meant by 'systematic analysis'?
45.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.2.7, Fitness for duty, and 4.3.3, Safe operating envelope, 4.3.4, Outage management performance and 4.3.5, Accident and severe accident management and recovery, 4.4, Safety analysis, and 4.5.3	Regarding the section on Fitness for Duty, industry has invested considerable effort to implement the various volumes of REGDOC-2.2.4, (Managing Worker Fatigue; Managing Alcohol and Drug Use; Nuclear Security Officer Medical, Physical and Psychological Fitness). It is important that future drafts of REGDOC-1.1.2 not circumvent existing fitness for duty programs or implementation plans related to any of these elements. This identical comment was submitted for sections 4.2.7, 4.3.3, 4.3.4, 4.3.5, 4.4, and 4.5.3.
46.	Global First Power	Section 4.3.2, Procedures	Section on concrete structures. The use of off-site pre-cast concrete is not addressed. This activity can also be performed prior to the construction phase, ie before a LTC is in place which does not seem to be covered by the wording. Suggested Change: Re-word to include reference to pre-cast concrete. Pre-cast concrete is important in order to reduce construction time and improve quality control by performing it off-site. This would also include concrete for important to safety structures.

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
47.	Global First Power	Sections 4.3.3, Safe operating envelope, 4.3.4, Outage management performance and 4.3.5, Accident and severe accident management and recovery	<p>(for section 3.3.3) The wording on fuel bundle, fuel channel etc. is not applicable to advanced reactor designs. The requirements cannot be met or measured as required in some advanced reactor designs. The intent of the requirements should rather be stated.</p> <p>Suggested Change: Re-word to consider designs which do not include these components.</p>
48.	Global First Power	Sections 4.3.3, Safe operating envelope, 4.3.4, Outage management performance and 4.3.5, Accident and severe accident management and recovery	<p>Safe operating envelope. 'The application should state the safe operating limits and conditions pertaining to reactor core, channel and fuel bundle powers. The information submitted should describe how the applicant will comply with limits imposed by the design and safety analysis assumptions – for example, the total power generated in any one fuel bundle, the total power generated in any fuel channel, and the total thermal power from the reactor fuel. The application should clearly describe the actions to be taken if the limits and conditions are not met.'</p> <p>Suggested Change: Should be reworded to accommodate advanced reactors that don't have traditional channels and bundles, in some the fuel is carried by a liquid. The requirement as it stands is written for CANDU type plants.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
49.	Global First Power	Sections 4.4, Safety analysis and 4.4.1, General considerations	<p>'...so that the final safety analyses reflect the finished reactor facility design. ... to ensure that the design intent will be achieved in the "as built" reactor facility.'</p> <p>This seems to request a final safety analysis at the construction application time. The "final" safety analysis reflecting the finished reactor facility design was traditionally included in a Final Safety Analysis Report (FSAR) and expected to be included in the operating licence application. The "final" safety analysis will indeed reflect the facility "as built", but it should be expected for an operating licence application (in REGDOC-1.1.3), not for a construction licence application (REGDOC-1.1.2).</p> <p>Suggested Change: CNSC is expected to clarify what is meant by "final safety analyses" in the context of this guidance for construction licence applications.</p>
50.	Global First Power	Sections 4.4, Safety analysis and 4.4.1, General considerations	<p>'...and in accordance with "intelligent customer" principles.'</p> <p>The CNSC is requested to clarify in the document what is meant and expected by this statement in the context of that particular paragraph. A clarification note will ensure clarity regarding the expectations.</p> <p>Suggested Change: Clarification required.</p>
51.	Global First Power	Sections 4.4, Safety analysis and 4.4.1, General considerations	<p>The concept of "intelligent customer" is new and should be defined in the glossary.</p> <p>Suggested Change: Define in the Glossary.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
52.	Global First Power	Section 4.4.6, Severe accident analysis	<p>The beginning of Section 4.4.6 (Severe accident analysis) mentions REGDOC-2.3.2 Accident Management as a requirement (shall) when performing severe accident analysis: 'The applicant shall demonstrate that a severe accident analysis has been performed in accordance with the requirements of: ...REGDOC-2.3.2.'</p> <p>REGDOC-2.3.2 is not a guidance for performing severe accident analysis; severe accident analysis results can be inputs into accident management (which is the scope of REGDOC-2.3.2). REGDOC-2.3.2 is already sufficiently and adequately used as a reference in Sections 4.3.5 and 4.4.8.</p> <p>In the context of section 4.4.6 how does the CNSC anticipate an applicant for a construction licence demonstrating compliance with REGDOC-2.3.2.</p> <p>Suggested Change: CNSC is requested to remove the reference to REGDOC-2.3.2 here as the clause in section 4.3.5 is sufficient. Alternatively, provide additional clarification on what specifically is required or meant in this section 4.4.6 with respect to REGDOC-2.3.2.</p>
53.	Global First Power	Section 4.4.6, Severe accident analysis	<p>BDBA description - The description and requirements on BDBAs do not seem to be technology independent.</p> <p>Suggested Change: Re-word section to make technology independent.</p>
54.	Global First Power	Section 4.4.6, Severe accident analysis	<p>The severe accident analysis is one of the areas where it is important to mention that a risk informed graded approach can be applied. For most SMRs and Advanced Reactors, there will be very few or maybe even no 'accidents that can lead to significant core damage, and/or offsite releases of radioactive material (severe accidents)'.</p> <p>Suggested Change: The CNSC should mention that a risk informed graded approach to severe accident analysis can be used, especially for advanced reactors.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
55.	Global First Power	Section 4.4.6, Severe accident analysis	<p>'The format and content of the beyond-design-basis accident (BDBA) analyses should be consistent with the presentation of the analyses for anticipated operational occurrences and design-basis events.'</p> <p>The format and content of risk informed graded approach severe accident analysis may likely not be consistent with the analysis for AOOs and DBAs.</p> <p>Suggested Change: The CNSC is asked to adjust or remove this expectation.</p>
56.	Global First Power	Section 4.5.1, General considerations	<p>'The application should also describe the programs and oversight in place to ensure that the design is carried out by technically qualified and appropriately trained staff, and is in accordance with the management system program supporting design and in accordance with "intelligent customer" principles. The information should demonstrate that all contractors and subcontractors involved in the design are qualified to carry out their respective activities.'</p> <p>The requirements of this paragraph overlap with some of the requirements in Section 4.1.3. The requirements from section 4.1.3 include also the design scope in addition to the pre-construction, construction, commissioning scopes.</p> <p>Suggested Change: It is suggested this paragraph is removed or it is clarified what is it asked here in addition to or different from what is asked in Section 4.1.3.</p>
57.	Global First Power	Section 4.5.1, General considerations	<p>'..conforms to high standards.'</p> <p>Please explain what is required to conform to 'high standards.'</p> <p>Suggested Change: Clarify what is meant by 'high standards' to avoid ambiguity.</p>
58.	Global First Power	Section 4.5.1, General considerations	<p>Description of SSC - It is unclear how the requirements take into consideration the safety classification of SSC or allow for a graded approach in level of detail provided in these sections.</p> <p>Suggested Change: Provide clarification.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
59.	Global First Power	Section 4.5.1, General considerations	'behaves as predicted for novel aspects of the design' 'Novel' can have a negative connotation that invites scrutiny and is open to interpretation. Suggested Change: Re-word
60.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.5.3, Design principles and requirements	Section 4.5.3, Design principles and requirements, sub-section "Robustness against malevolent acts" says the Treasury Board Secretariat Policy on Government Security (effective July 1, 2019) was reviewed. This policy does not provide "guidance for the protection and transmission of prescribed information." Suggested Change: Revise Section 4.5.3, Design principles and requirements, sub-section "Robustness against malevolent acts" to remove the reference to the Policy on Government Security.
61.	Global First Power	Section 4.5.3, Design principles and requirements	'...conforms to high quality levels' Suggest 'appropriate quality levels'. High is open to interpretation and comparison to existing NPPs. Suggested Change: Re-word
62.	Global First Power	Section 4.5.3, Design principles and requirements	'...Safety goals include qualitative and quantitative safety goals, core damage frequency, and small and large release frequencies...' For many SMRs core damage frequency and small and large release frequencies do not apply. Suggested Change: Suggest following wording - 'The quantitative safety goals for the SMRs may be expressed in terms of frequency of radionuclide releases and represented on a frequency / consequence diagram.'

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
63.	Global First Power	Section 4.5.8, Reactor and reactor coolant system	<p>This section assumes a PWR design.</p> <p>Suggested Change: Requirement should be generalized to be applicable to SMRs as well.</p> <p>MAJOR Impact on Industry: This section appears to have been written exclusively for water-cooled current designs.</p> <p>Many SMR designs have enhanced safety features in addition to those of traditional reactor designs. Consequently, their risk profile is even further reduced. Regulatory requirements stipulated for such advanced reactor designs need to take these enhancements into consideration. Unless that difference is reflected in an application guide, Canada's ability to encourage new reactor proponents and attract necessary financial investment will be inappropriately impacted.</p>
64.	Global First Power	Section 4.5.9, Safety systems and safety support systems	<p>'...when the reactor power control system and the inherent characteristics are insufficient or incapable of maintaining reactor power within the requirements of the SOE.'</p> <p>SMRs make use of inherent and intrinsic features to achieve a controlled or safe state. These are typically material properties that are not expected to fail or change significantly over time. The assumption that an additional active safety system is required as DiD for an inherent or intrinsic feature is excessive.</p> <p>Suggested Change: Requirement should be generalized to be applicable to SMRs as well and consider enhanced safety features built into new designs.</p> <p>MAJOR Impact on Industry: This section appears to have been written exclusively for water-cooled current designs.</p> <p>Many SMR designs have enhanced safety features in addition to those of traditional reactor designs. Consequently, their risk profile is even further reduced. Regulatory requirements stipulated for such advanced reactor designs need to take these enhancements into consideration. Unless that difference is reflected in an application guide, Canada's ability to encourage new reactor proponents and attract necessary financial investment will be inappropriately impacted.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
65.	Global First Power	Section 4.5.9, Safety systems and safety support systems	<p>Systems supporting Confinement and Containment - This section has a strong LWR focus. SMRs may have one or more of the listed systems depending on the technology.</p> <p>Suggested Change: Requirement should be generalized to be applicable to SMRs as well and consider enhanced safety features built into new designs.</p> <p>MAJOR Impact on Industry: This section appears to have been written exclusively for water-cooled current designs.</p> <p>Many SMR designs have enhanced safety features in addition to those of traditional reactor designs. Consequently, their risk profile is even further reduced. Regulatory requirements stipulated for such advanced reactor designs need to take these enhancements into consideration. Unless that difference is reflected in an application guide, Canada's ability to encourage new reactor proponents and attract necessary financial investment will be inappropriately impacted.</p>
66.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.5.2, Site characterization	<p>Similar to [the comments for sections 2.5 and 4.2.4], Section 4.6 and its subsections expect a level of refinement on component health programs that may not be available at time of construction licence application. Furthermore, these requirements are typically refined and adjusted based on OPEX from running facilities. It is questionable whether this level of detail will be available for first-of-a-kind technology early in the construction licence application when detailed design is not yet finalized.</p> <p>Suggested Change: The level of effort should be commensurate with the amount of information available in this area. Many of the requirements are not required until PROL application and should be removed from this document.</p> <p>MAJOR Impact on Industry: Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety.</p> <p>Any guidance in future drafts needs to provide some flexibility with regards to the level of development needed for a construction licence application. A proponent's inability to provide the requested detail at time of licence to construct application will delay licensing timeline and cause undue delay to projects.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
67.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.7, Radiation protection, 4.7.1, Radiological hazard identification and assessment and 4.7.2, Application of ALARA	<p>The section on Radiological hazard identification and assessment, which says, “The application shall describe a nuclear criticality safety program that meets the requirements in REGDOC-2.4.3, Nuclear Criticality Safety [29]” should be in Section 4.4.</p> <p>Suggested Change: Criticality safety is typically covered under the Safety Analysis Safety and Control Area. In Table B.1 in Appendix B: Safety and Control Areas of draft REGDOC-1.1.2 document, Criticality Safety is listed under Safety Analysis. Thus, the sentence in Section 4.7.1 should be moved under Section 4.4 Safety Analysis of REGDOC-1.1.2.</p>
68.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	The scope of what is required to be included in the licence to construct application is not clear. Each of the following sections under Environmental Protection indicates the operation phase is to be included in scope:	
		Sections 4.9.1	<ul style="list-style-type: none"> • Section 4.9.1: 'The application shall provide proposed timelines and milestones for development of provisions for environmental protection during fuel-in commissioning and reactor facility operation.'
		Section 4.9.2,	<ul style="list-style-type: none"> • Section 4.9.2: 'The application should describe the effluent monitoring program that will be the primary indicator of reactor facility performance in terms of releases to air, surface waters, groundwater and soils, from both operation and waste management activities.'
		Section 4.9.3,	<ul style="list-style-type: none"> • Section 4.9.3: 'The application should describe the environmental management system established to ensure protection of the environment throughout operation.'
		Section 4.9.4,	<ul style="list-style-type: none"> • Section 4.9.4: 'The application should describe the monitoring system established to cover all environmental monitoring measures on the site during operation.'
		Sections 4.9.5,	<ul style="list-style-type: none"> • Section 4.9.5: 'The application should identify and describe all the radiological and non-radiological aspects of site activities that could have environmental effects, including exposure to members of the public during operation.'

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
			<p>Suggested Change: Clarify the scope of requirements at the time of application for a licence to construct. Transition plans and information to demonstrate readiness for operation are reasonable requirements; however having complete programs meant for the operational phase already established at the time of application for licence to construct is not a reasonable expectation.</p> <p>MAJOR Impact on Industry: Misalignment in the requested detail at time of a licence to construct application will delay licensing timelines and cause undue delay to projects.</p>
69.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.9.4, Assessment and monitoring	<p>Licensees seek additional clarity on the passage which reads: 'The application should also describe the provisions for monitoring the site-related parameters affected by: - seismic events, atmospheric events, and water- and groundwater-related events - demographic, industrial and transport-related developments.</p> <p>'This description should be sufficiently detailed to provide the information necessary to support emergency actions in response to external events, to support a periodic review of safety at the site, and to develop dispersion modeling for radioactive material. The description should also serve as confirmation of the completeness of the set of site-specific hazards that have been taken into account.'</p> <p>This paragraph seems to refer to monitoring that is related to external hazards/events. This does not seem to belong in the Environmental Protection section. Is this a new requirement or is it meant to be captured under a different program?</p> <p>Suggested Change: Clarify the scope of requirements, and the appropriate program under which it belongs, at the time a licence to construct is applied for and what program is the appropriate place for this clause.</p>
70.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.9.5, Protection of the public and 4.9.6, Environmental risk assessment	<p>(for section 4.9.6): Licensees seek clarity on the following, 'The application shall include an environmental risk assessment (ERA). The applicant should review the ERA that was developed under their application for a licence to prepare the site, and update the information as necessary to reflect any changes to the site or the situation.'</p> <p>Can it be clarified whether the reference to an ERA in this section is referring to a retrospective or a predictive ERA?</p> <p>Suggested Change: Clarify whether the ERA described here is intended to be a retrospective or predictive ERA.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
71.	Global First Power	Sections 4.10, Emergency management and fire protection and 4.10.1, General considerations	<p>This area also includes any results of participation in exercises.</p> <p>It is not clear if the CNSC expects the applicant to be engaged in and perform emergency exercises before a licence to construct is granted (such that the exercises' results be included in the licence application). If that is the case, 1) it would be difficult to imagine how such exercises would take place on a cleared site (assuming a LTPS was granted and the site is being prepared) and what the benefits would be for construction activities, and most importantly 2) the CNSC should make a reference to such requirement.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
72.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.10.2, Nuclear emergency preparedness and response	<p>For clarity, licensees believe this section requires:</p> <ol style="list-style-type: none"> 1. A description of any natural or artificial 'events' rather than 'hazards' 2. A revised list of bullets to align with N1600. <p>Suggested Change: Revise the section to:</p> <ol style="list-style-type: none"> 1. Require a description of any natural or artificial “hazards”. 2. Include the following bullets to describe an emergency plan that aligns with those plan elements described in N1600: <ol style="list-style-type: none"> a) emergency response organization, including staffing, roles and responsibilities, and activation; b) concept of operations; c) categorization and notification; d) emergency assessment; e) protection strategy, including reference levels, generic criteria, operational intervention levels, and protective actions; f) interface with and support between response organizations; g) emergency personnel protection; h) critical facilities and support resources; i) communication and information flow; j) public alerting process; k) continuity of nuclear emergency response operations; l) process for deviation from the nuclear emergency response plan; m) supporting agreements, plans, and procedures; n) validation of the nuclear emergency response plan and procedures; and o) nuclear emergency response plan maintenance. <p>MAJOR Impact on Industry: These amendments will clarify the scope align this document with the program requirements listed in N1600 Section 7.2.1.2 Plan Elements.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
73.	Bruce Power, Canadian Nuclear Laboratories (CNL), New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.10.2, Nuclear emergency preparedness and response	<p>Per the note at the beginning of section 4.10, 'This SCA includes conventional emergency and fire response.' However, section 4.10.2 is on 'Nuclear emergency preparedness and response' and is an identical copy of the similar section from REGDOC-1.1.3 and a licence to operate.</p> <p>Suggested Change: Section 4.10.2 should be removed from REGDOC-1.1.2 to avoid confusion for licence applicants and other users of this REGDOC.</p> <p>MAJOR Impact on Industry: Unless removed, this would inappropriately affect the scope of an application.</p>
	Global First Power		<p>Per the note at the beginning of section 4.10, "This SCA includes conventional emergency and fire response." However, section 4.10.2 is on "Nuclear emergency preparedness and response" and is an identical copy of the similar section from REGDOC-1.1.3 (re Licence to Operate)</p> <p>Suggested Change: Section 4.10.2 should be removed from REGDOC- 1.1.2, otherwise will be very confusing for licence applicants and users of this REGDOC.</p> <p>Major Impact on industry: This draft does not appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety.</p>
74.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.10.3, Conventional emergency preparedness and response and 4.10.4, Fire emergency preparedness and response	<p>(for section 4.10.4): Requirements in this section should be based on the FSSA/FHA of the facility design and should consider new and unique features related to fire detection/suppression.</p> <p>Suggested Change: Base this section on the FSSA/FHA of the facility design.</p> <p>MAJOR Impact on Industry: Licensees want to ensure that fire response requirements are based on FSSA/FHA for the facility design taking into consideration that robustly-designed fire detection and suppression systems can eliminate the need for a dedicated onsite industrial fire brigade.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
75.	Global First Power	Sections 4.11, Waste management and 4.11.1, General considerations	<p>Paragraph 3 of Section 4.11.1 requires a description of 'the overall waste program to address waste generated during day-to-day operation'; the adjective 'overall' can have two different meanings, i.e. 'general' and 'comprehensive'.</p> <p>Suggested Change: CNSC should clarify that general description rather than a comprehensive description is expected in this context.</p>
76.	Global First Power	Sections 4.11, Waste management and 4.11.1, General considerations	<p>Paragraph 1 of Section 4.11.1 requires the applicant to 'address management of hazardous substance wastes', i.e. not including radioactive waste recognizing that the application's scope is construction including fuel-out (or phase A) commissioning.</p> <p>Paragraph 2 of Section 4.11.1 then requires the application to 'provide proposed timelines and milestones for development of provisions for waste management during fuel in commissioning and reactor facility operation.' (thus, it is limited to timelines and milestones).</p> <p>However, the rest of Section 4.11.1 and the entire following sections 4.11.2 through and including 4.11.4 are almost identical with the corresponding sections of REGDOC-1.1.3 (for Licence to Operate) and notwithstanding that 'overall' could mean 'general' (see above), it seems that CNSC is requiring the construction licence application to include the same scope on waste management as for the operating licence application; that is - to include also information on radioactive wastes (which contradicts the first paragraph of Section 4.11.1).</p> <p>Suggested Change: CNSC is requested to revise the entire sections 4.11.1 to 4.11.4 and scrub them to remove all unnecessary references to radioactive wastes and associated requirements/expectations, or limit requesting radioactive waste information only to 'timelines and milestones'. Otherwise, the entire section will remain very confusing for licence applicants and users of this REGDOC.</p> <p>MAJOR Impact on Industry: During construction, waste management would be limited to conventional waste. As such, this draft does not appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety. Any guidance in future drafts needs to provide some flexibility with regards to the level of development needed for a construction licence application. A proponent's inability to provide the requested detail at time of licence to construct application will delay licensing timeline and cause undue delay to projects.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
77.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.11.2, Waste management practices	<p>Licensees feel the following passage is subject to interpretation: 'The application should include provisions to reduce the waste to a level that is as low as practicable.' How low is low enough? To what extent does the proponent have to minimize – at all costs regardless of the benefits? The costs of waste processing and minimization are not insignificant and the proponent must be able to balance these costs against the volume reduction achieved.</p> <p>Suggested Change: Amend to read, 'The application should include provisions to reduce the waste to a level that is as low as reasonably practicable.'</p> <p>MAJOR Impact on Industry: If left to interpretation, this could delay the licensing process and construction schedules due to a misalignment of expectations.</p>
78.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.11.2, Waste management practices	<p>Licensees have several other concerns with the clarity of this section. Specifically:</p> <ol style="list-style-type: none"> 1. The use of the terms 'storage', 'disposal' and 'long-term storage' in various contexts lead to some confusion. For example, the 2nd sentence of the 1st paragraph says, 'The measures taken for the safe management and disposal of these wastes throughout operation should be described.' In this case, the use of the term 'disposal' implies that throughout the operating period, final disposal (such as in a repository) must have already been considered. Yet, those disposal facilities may be several decades in the future. While of course, final disposal needs to be a consideration – it appears that what is actually meant in the context of this sentence is 'interim storage.' 2. The word 'accumulated' in the 2nd paragraph is not appropriate in this context. 3. In the 4th paragraph, the use of the word 'disposal' in this context seems to indicate that disposal (such as in a repository) needs to be consolidated for example with the new reactor's PROL. This paragraph also presumes that fuel will be transferred from wet storage to dry. What if there is a future reactor design that enables fuel transfer directly to disposal? Or what if the fuel does not need wet storage at all and goes straight to cask storage? 4. In the 5th paragraph, things like retrievability are applicable to disposal. Is that what 'longer term' is meant in this context? 5. In the 6th paragraph, some of the bulleted items appear to relate more to final disposal rather than storage. Specifically, 'multi-barrier containment approach' is typically more applicable to disposal. Similarly, 'retrievability' is applicable to

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
			<p>disposal because by its very nature, waste in interim storage is retrievable as it still needs to be retrieved and sent to final storage.</p> <p>6. The 7th paragraph says, 'The application should describe how the program takes into account the possible need to retrieve waste at some point in the future, including during the decommissioning stage.' Again, retrievability is typically applicable to disposal – so the initial reactor application must address potential future retrievability from a disposal facility, which will likely be licensed separately, most likely by a different project proponent.</p> <p>Suggested Changes: Amend:</p> <ol style="list-style-type: none"> 1. The 2nd sentence of the 1st paragraph to read, 'The measures taken for the safe management and storage of these wastes throughout operation should be described.' 2. The 2nd paragraph to read, 'The application should describe the types, quantities and volumes of radioactive and hazardous waste that will be generated.' 3. The 4th paragraph to read, 'Where the application includes the consolidation of the waste management facility into an operating licence, the application should describe the process for handling (including receipt, transfer and loading of waste), and storage and disposal of the solid radioactive waste and the management of spent fuel from the spent fuel bay to the dry storage facility.' 4. The 5th paragraph to clarify what 'longer term' is meant in this context. 5. The bulleted list to delete 'multi-barrier containment approach' and 'retrievability.' 6. Similarly clarify the context around 'the need to retrieve waste.' <p>MAJOR Impact on Industry: Lack of clarity could delay the licensing process and project schedules while overly prescriptive 'guidance' could stifle innovative approaches.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
79.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.11.3, Waste characterization, 4.11.4, Waste minimization and 4.11.5, Decommissioning practices	<p>(for section 4.11.3): Not all waste types are conditioned, though this section says, 'The application should also describe the measures taken to condition the waste produced during operation, and describe the procedures for processing the waste.'</p> <p>Suggested Change: Amend to read, 'The application should also describe the measures taken to condition where applicable the waste produced during operation, and describe the procedures for processing the waste.'</p>
80.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.12.4, Security practices, 4.12.5, Security training and qualification and 4.12.6, Cyber security	<p>The REGDOC states 'the application shall describe the measures in place to ensure response workers are trained and capable of performing the duties described in Section 30 of the Nuclear Security Regulations and in accordance with [REGDOC-2.12.1, Volume I].'</p> <p>There is no statutory requirement for the security program to comply with REGDOC-2.12.1, Volume I and no need for this information during the construction phase.</p> <p>Suggested Change: Remove this section as this does not apply during the construction phase of a project.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
81.	Global First Power	Sections 4.13.3, Access and assistance to the IAEA, 4.13.4, Operational and design information and 4.13.5, Safeguards equipment, containment and surveillance	<p>'The application should describe how the program ensures that the IAEA is able, upon request, to access the facility for inspections and other verification activities. Additionally, the application should describe how the program ensures that such activities are supported by facility workers and resources.'</p> <p>Suggested Change: Suggest that an addition of a provision to allow for IAEA remote access, would be preferable for remote sites.</p>
82.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 5.3, Indigenous engagement and 5.4, Cost recovery and financial guarantees	<p>The terminology in this section needs to be updated. Also, this section discusses Indigenous engagement in general, but provides no guidance for the applicant to address this element. REGDOC-3.2.2 is referenced, but it is not clearly listed as guidance for an application. This comment acknowledges that REGDOC-3.2.2 may provide requirements and/or guidance for a licensee (as noted by the REGDOC), if REGDOC-3.2.2 is cited in a licence or LCH. However, this statement of fact has no direct relevance to the requirements or guidance for an application.</p> <p>Suggested Changes: Revise to ensure proper terminology such as 'Aboriginal' or 'treaty' rights vs. 'Indigenous treaty rights.' For consistency, the phrase meaningful consultation with 'Indigenous groups' should be expressed as '... Indigenous peoples and communities.'</p> <p>Also revise the section, to provide guidance for the applicant, or remove it altogether. The revision should make clear that there is no statutory requirement for REGDOC-3.2.2 to apply to an Indigenous engagement program, nor to an application for a licence.</p> <p>MAJOR Impact on Industry: Although REGDOC 3.2.2 is entitled Indigenous Engagement, when referring to rights under Section 35 of the 1982 Constitution Act, it should be rendered as Aboriginal and treaty rights in this particular instance.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
83.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Appendix A: Legislative Clauses	<p>Appendix A maps clauses of the NSCA and associated regulations to the various sections of the REGDOC. However, these clauses may or may not refer to licence applications, but generally refer to obligations of licensees.</p> <p>Nuclear Security Regulations: Appendix A cites “all” and Clause 3(b). The REGDOC should cite Clause 3 and Clause 4 directly.</p> <p>Nuclear Substances and Radiation Devices Regulations: Appendix A cites clause 5. However, Clause 5 does not refer to requirements. In fact, Clause 5 specifically exempts certain activities from a licence.</p> <p>Appendix A should be revised to more clearly focus solely on requirements that apply to an application for a licence to construct a nuclear facility.</p> <p>Suggested Change: Revise Appendix A to remove clauses that do not apply directly to an application for a licence to construct a nuclear facility.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
84.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Appendix A: Legislative Clauses	<p>Several paragraphs from the Class I NFR have not been fully addressed in the draft REGDOC. The schedule for construction is required to be provided, pursuant to the Class I NFR, Section 5(c), but has not specifically been addressed in the REGDOC. The proposed quality assurance program is required to be provided, pursuant to the Class I NFR, Section 5(g), but has not specifically been addressed in the REGDOC. (Section 4.1.2 does provide guidance to address N286, but does not explicitly provide a requirement to identify the quality assurance program, which may or may not be N286.)</p> <p>At various locations, the draft REGDOC mentions monitoring and controlling releases, but at no point does the REGDOC specifically address the requirement from the Class I NFR, Section 5(j), including point of release, maximum quantities and concentrations, volumes, flow rates, and characteristics. Section 4.2.3 provides guidance to provide the program and schedule for recruiting, training, and qualifying workers. However, Class I NFR, Section 5(l), requires this information.</p> <p>Suggested Change: Revise the REGDOC to more precisely align with the exact requirements of the Class I Nuclear Facilities Regulations, Section 5. However, “shall” statements should not also include guidance or expectation that goes beyond the specific requirements of the Class I Nuclear Facilities Regulations.</p> <p>MAJOR Impact on Industry: Misalignment between requirements, guidance and expectations; artificially raises the profile of guidance to equate to requirement per regulation – unnecessary regulatory burden.</p>
85.	Global First Power	Appendix C: Review Objectives for an Application for a Licence to Construct a Reactor Facility	<p>(in section C.3): “meeting the design safety objective means satisfying the relevant expectations outlined in: ... REGDOC 1.1.1, Site Evaluation and Site Preparation for New Reactor Facilities...”</p> <p>It is not clear why REGDOC-1.1.1 is mentioned here for meeting the design safety objectives for a Licence to Construct. The expectations from REGDOC-1.1.1 would have already been assessed by the CNSC staff during the review of the Licence to Prepare Site application and may have been already reflected in the granted licence to prepare site.</p> <p>Is the CNSC staff assuming that an applicant/licensee may apply for a Licence to Construct before a Site Licence is granted?</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
86.	Global First Power	Appendix C: Review Objectives for an Application for a Licence to Construct a Reactor Facility	<p>(in section C.3): "At an intermediate level, the expectations of REGDOC 2.5.2 [9] may be grouped in several main categories, which can be thought of as the third-level objectives."</p> <p>It is not clear what is meant by this statement in general, and by "an intermediate level" in particular."</p> <p>Suggested Change: CNSC is requested to clarify the meaning of "intermediate level" in this context.</p>
87.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Appendix D: Sample Format for Listing the Supporting Documentation	<p>The REGDOC states that the 'applicant will have already provided supporting documentation in an application for a licence for site preparation.'</p> <p>This is not strictly accurate, as an applicant could apply for a licence to prepare a site and construct a facility at the same time, as noted in Section 2.1."</p> <p>Suggested Change: Change the text to: 'If the applicant has previously applied for a licence to prepare a site, then some of the supporting documentation may already have been provided.'</p> <p>MAJOR Impact on Industry: The change will help clarify requirements for some applicants who may wish to apply for multiple related activities at the same time."</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
88.	Bruce Power, Canadian Nuclear Laboratories (CNL), New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Glossary	<p>Definition of Intelligent Customer:</p> <p>The REGDOC states that “As an intelligent customer, in the context of nuclear safety, the organization should ... supervise the work and should technically review the output before, during and after the work”. There is oversight of contracted work rather than supervision, and the output is reviewed and accepted to ensure that it meets the intended purpose. This also aligns with CSA N286-12.</p> <p>Suggested Change: Change the text to : “As an intelligent customer, in the context of nuclear safety, the organization should... oversee the work and should review and accept the output to ensure that it meets the intended purpose.”</p> <p>Major Impact on Industry: Implementation would cause misalignment with CSA N286, REGDOC-2.1.1 and current industry practices.</p>

Table C: Theme: Applicants must have the option of applying a graded approach or alternative methods; this draft is not clear on whether or how that is permitted
(this table consolidates all specific comments received that have been consolidated into comment #NN)

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
i.	Bruce Power	General	<p>As Canada looks to emerging technologies, such as Small Modular Reactors (SMR), to meet its future energy and environmental challenges, there is a pressing need for a contextual, up-to-date licence application guide to construct reactor facilities of all types. As currently written, this draft REGDOC does not meet that need.</p> <p>Rather than guide potential new proponents on how to apply for a construction licence, this document contains a level of detail and requirements more in keeping with the scale of existing Canadian nuclear power plants. Too often, this early draft refers to requirements under Safety and Control Areas that would not apply to the construction phase, but would be addressed in subsequent applications such as license renewals, or licences to operate.</p> <p>Suggested Change: Given the importance of an application guide for all reactor types, licensees strongly urge the CNSC to conduct a workshop with all interested stakeholders to better understand applicants' needs and align this early draft with information in REGDOC-1.1.5., Supplemental Information for Small Modular Reactor Proponents.</p> <p>MAJOR Impact on Industry: Many SMR designs have enhanced safety features in addition to those of traditional reactor designs. Consequently, their risk profile is even further reduced. Regulatory requirements stipulated for such advanced reactor designs need to take these enhancements into consideration. Unless that difference is reflected in an application guide, Canada's ability to encourage new reactor proponents and attract necessary financial investment will be inappropriately impacted. This document appears to have been written exclusively for current designs and construction by large utilities; though it's unlikely it will be used for this purpose in the foreseeable future.</p> <p>Will there be another licence to construct for SMRs, or is this exclusive to all makes of nuclear models? Future drafts would benefit from additional insights on possible "mass production" of SMRs from a single site and the site preparation aspect by another organization. A flexible approach is not currently evident in this initial draft REGDOC."</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
ii.	Bruce Power	Overall regulatory document	<p>Unlike other recently-issued REGDOCs, the use of a “risk-informed graded approach” is barely mentioned in this draft. Though referenced in REGDOC-1.1.5, the concept of a risk-informed graded approach is particularly important for emerging technologies such as SMRs and should be more explicitly stated at the beginning of this REGDOC.</p> <p>Suggested Change: Align future drafts of this document with all current REGDOCs to include wording around “risk-informed graded approach.” Provide context early in the text as to why this approach is important given the difference in risk profiles for SMRs.</p> <p>MAJOR Industry Impact: Similar to comment #1, an inability to apply concepts/requirements outlined in this REGDOC in a risk informed graded approach will likely preclude small/micro SMRs from being deployed by proponents other than existing large nuclear utilities. This will, in effect, stop any potential SMR deployment, particularly at the smaller end of the spectrum and put Canada’s ability to capitalize on first-mover advantage at risk as outlined in the SMR Roadmap.</p>
iii.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.3, Licensing process and Section 2.5, Completing the licence application	<p>The regulatory framework should not restrict innovation. Specifically, innovative new nuclear technologies may not meet the prescriptive requirements in the REGDOC framework (for example, but not limited to, REGDOC-2.5.2). This is, of course, an area of ongoing discussion with the CNSC, but the licence application guide should make it clear that existing REGDOCs do not necessarily reflect requirements in all cases. If this is not made clear (or, if the CNSC does not agree with this interpretation of how to apply the regulatory framework), then the overall framework may provide a barrier to innovation, which may be of detriment to Canada.</p> <p>his identical comment was submitted for sections 2.3 and 2.5.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
iv.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees have a series of significant concerns and requests for clarity with the sub-section on Organization. Once again, this draft document is seeking information that is either overly broad, not available in the construction phase, speculative or geared toward existing, large-scale organizations.</p> <p>Suggested Change: CNSC staff is urged to revisit this entire section to ensure it seeks information that is applicable to all potential applicants and available at the time of a licence to construct application.</p> <p>MAJOR Impact on Industry: This document appears to have been written exclusively for current CANDU designs and construction by large utilities. Will there be another licence to construct for SMRs, or is this exclusive to all makes of nuclear models? This lack of clarity could weaken Canada's ability to capitalize on first-mover advantage as outlined in the SMR Roadmap.</p>

Table D: Theme: What is the regulatory basis for the CNSC’s requirements on specific items?

(this table consolidates all specific comments received that have been consolidated into comment #NN)

(Note that comments in this table may include comments included in Table E, because some individual comments include information relevant to both themes)

	Reviewer	Section or Para.	Reviewer’s Comment and Proposed Change
b.	Bruce Power	Submit comments on the overall regulatory document	<p>The draft REGDOC mixes requirements (“shall” statements) that have a basis under the NSCA with expectations (“should” statements) that have no basis under the NSCA. For example, the draft REGDOC states “the applicant shall describe how their proposed public information and disclosure program... meets the requirements in REGDOC-3.2.1.” While submission of a proposed public information and disclosure program is indeed a statutory requirement (a “shall” statement is appropriate), the requirement to meet REGDOC-3.2.1 is not a statutory requirement. In other words, this sentence has mixed statutory requirements with general expectations. Accordingly, all statements that mix requirements (“shall”) with expectations (“should”) must be rewritten to clearly delineate requirements from expectations.</p> <p>Suggested Change: Review and revise the REGDOC to eliminate “shall” statements that are not fully aligned with the statutory requirements under the NSCA. Where those statements go beyond the requirements of the NSCA, they should be rewritten as guidance, not requirements. Specific examples of these statements are identified in [other comments].</p> <p>MAJOR Impact on Industry: In order for the overall regulatory framework to not unduly burden business decisions, it is absolutely critical to clearly distinguish statutory requirements (“shall” statements) from general expectations (“should” statements).</p> <p>In an extreme example, if the licence application guide indicates that the application “shall” comply with a specific REGDOC, but the applicant proposes to use new technology that cannot meet all the requirements of that REGDOC, then an applicant may make a business decision not to proceed with the entire project.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
c.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.5, Completing the licence application	<p>Licenseses have significant concerns with the following passages:</p> <ol style="list-style-type: none"> 1. The REGDOC says the applicant “shall” submit improvement plans and “shall” identify standards to be met. Additionally, it says the applicant “shall” provide a performance assessment. The mandatory “shall” does not have a statutory basis. Unless REGDOC-1.1.2 is cited in a licence, the “shall” has no weight in this context 2. More importantly, improvement plans and performance assessments do not belong in a licence to construct. These are more appropriate during licence renewals, or licences to operate. The REGDOC is asking for information that would not exist for first constructors 3. The need to cite 'other' codes and standards as per the 1st sentence of the 2nd paragraph should be clarified. Codes and standards are not regulatory documents, per se. <p>Suggested Change: CNSC staff is urged to:</p> <ol style="list-style-type: none"> 1. Either remove the references to improvement plans and performance assessments or note that, in the case of a licence renewal, 'the applicant should submit improvement plans' and where changes are planned, 'the applicant should identify the standard to be met.' 2. Correct Section 2.5 to note that, in the case of a licence renewal, 'the applicant should provide a statement of performance assessment where warranted.' 3. Amend the 1st sentence of the 2nd paragraph to read, 'The application should cite CNSC regulatory documents, and other codes and standards that will govern program objectives that demonstrate the applicant's ability to implement the safety and control measures.' <p>MAJOR Impact on Industry: It is important to maintain a clear distinction between requirements and guidance in all aspects of the regulatory framework. By citing items like improvement plans and performance assessments, this draft does not seem to recognize these are construction projects not ongoing operations. Firsttime constructors cannot be required to submit information that will not exist. A requirement to submit an improvement plan, if not warranted, will result in unnecessary project work.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
d.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 3.2.3, Description of site, 3.2.4, Description of the facility's existing licensing status and 3.2.5, Nuclear and hazardous substances	<p>The REGDOC says the application “shall” contain a site plan that includes a description of various security-related elements. Having reviewed GNSCR, Section 3, Class I NFR, Section 3, and the NSR, Section 3, licensees do not see statutory requirements for describing the unobstructed areas, barriers enclosing inner areas, inner areas, and/or vital areas. Therefore, this information is not mandatory as per the NSCA.</p> <p>Note that this comment fully agrees that the application “shall” contain a site plan. The intent of this comment is to note that the REGDOC cannot and should not create requirements for the content of the site plan, beyond any requirement specified in the NSCA. Accordingly, this statement must be revised to reflect guidance, not requirement. Also, was it the CNSC’s expectation that all of these elements be required for SMRs with no provision for a risk-informed graded approach?</p> <p>Suggested Change: Amend Section 3.2.3 to note that the site plan should contain a description of the unobstructed areas, inner areas, and/or vital areas and consider a graded approach to these requirements for SMRs based on risk.</p> <p>MAJOR Impact on Industry: An inability to apply concepts/requirements outlined in this REGDOC in a risk-informed graded approach will likely preclude small/micro SMRs from being deployed by proponents other than existing large nuclear utilities. This will, in effect, stop any potential SMR deployment, particularly at the smaller end of the spectrum and put Canada’s ability to capitalize on first-mover advantage at risk as outlined in the SMR Roadmap.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
e.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.0, Safety Policies, Programs, Processes, Procedures and Other Safety and Control Measures	<p>The introductory paragraphs are unclear. If read literally, the introductory paragraphs express requirements that are not statutory requirements and should not be included in this REGDOC.</p> <p>The two initial sentences make three separate statements, which are unclear at best. Specifically:</p> <ol style="list-style-type: none"> 1. "The applicant's safety policies [etc] shall address all relevant sections in the NSCA..." On the surface, this appears to state that the applicant shall follow the law. It may be that this statement is intended to mean that the application shall address all relevant sections of the NSCA. As this is the purpose of the licence application guide, such a statement is redundant at best. 2. "[The applicant's safety policies, etc.] shall also address the CNSC's safety and control areas." On the surface, this appears to state that the applicant's management system should address the CNSC's regulatory framework. Other than meeting legal requirements, it is not clear how to do so. Should the management system be structured to align with the CNSC's regulatory framework? Such a requirement would be unduly burdensome. Instead, it is assumed that this statement is intended to mean that the application shall address all CNSC safety and control areas. However, no such requirement exists under the NSCA, and the application guide is intended to provide that structure (as a guide, not a requirement). This statement is redundant at best. 3. "The applicant's policies, programs, [etc] shall also address other matters of regulatory interest." On the surface, this appears to state that the applicant's management system should address the CNSC's regulatory framework. Other than meeting legal requirements, it is not clear how to do so. Should the management system be structured to align with the CNSC's regulatory framework? Such a requirement ("shall") would be unduly burdensome. Instead, it is assumed that this statement is intended to mean that the application shall address other matters of regulatory interest. However, no such requirement exists under the NSCA, and the application guide is intended to provide that structure (as a guide, not a requirement). This statement is redundant at best. <p>Suggested Change: Remove introductory paragraphs) to Section 4 or revise to clarify their intent.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
f.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>The REGDOC says an applicant 'shall ensure that, as a contractual obligation, the applicant and the CNSC will have right of access to the premises of any supplier to the construction program.'</p> <p>This requirement (“shall”) is not based on the statutory requirements of the NSCA, and is not relevant to the application. This REGDOC should not—indeed, barring a specific licence condition, cannot— create requirements. There are appropriate times for the future licensee to visit supplier premises. However, this comment is intended to note that such visits are not appropriate for all suppliers. If taken literally, this requirement is unduly burdensome to the future licensee and may interfere with contractual relationships. The requirement for the CNSC to have right of access must be explained further.</p> <p>This comment has already noted that the REGDOC cannot create requirements. Taken literally, this new requirement envisions CNSC access to a wide variety of commercial suppliers, but does not provide context or limitations to the scope of that access. Under the NSCA, CNSC inspectors have wide authority and latitude to conduct inspections related to the mandate of the NSCA. If the proposed site visits fall within the mandate of the NSCA, such contractual obligations would not be necessary. If the proposed site visits do not fall within the mandate of the NSCA, such contractual obligations are not appropriate. Also, the CNSC has no legal mandate outside Canada. Therefore, should a supplier be located outside Canada’s border, this requirement cannot be enforceable.</p> <p>Suggested Change: Remove this statement or change 'shall' to 'should'.</p> <p>MAJOR Impact on Industry: This is an overly broad, unnecessary, and burdensome requirement. As the REGDOC should not, and cannot, create requirements, the statement must at minimum be clarified to reflect guidance, not requirement.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
g.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.2.2, Human performance program and 4.2.3, Personnel training	<p>The REGDOC states that the applicant 'shall describe a training system that is in accordance with REGDOC-2.2.2.' There is no statutory requirement to comply with REGDOC-2.2.2. Accordingly, this statement should reflect guidance, not requirement. This section also suggests, 'The applicant should describe the qualification and training requirements for personnel engaged in the design activities, and the proposed program and schedule for recruiting, training and qualifying workers for work relating to construction, commissioning, operation and maintenance.' This is not applicable to the licence to construct phase."</p> <p>Suggested Change: Remove the statement. Otherwise, revise Section 4.2.3 to say, 'the application should describe a training system that is in accordance with REGDOC- 2.2.2' or clarify that the requirement is to describe 'the proposed program and schedule for recruiting, training and qualifying workers in respect of the operation and maintenance of the nuclear facility' and that compliance with REGDOC-2.2.2 may be used to partially meet that requirement."</p> <p>MAJOR Impact on Industry: This is not appropriate for this phase of a potential project, but more applicable for an operating licence.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
h.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.2.4, Personnel certification	<p>The REGDOC states 'for positions requiring certification as set out in REGDOC-2.2.3, Volume III ... the application shall include details ...'</p> <p>However, neither REGDOC-1.1.2 nor REGDOC-2.2.3 Volume III can create requirements. There is no statutory requirement for persons to be certified as per REGDOC-2.2.3 Volume III. (This comment acknowledges the statutory authority of the Commission to impose certification requirements, but notes that authority is not necessarily linked directly to REGDOC-2.2.3 Volume III.)</p> <p>The applicant is, and should be, free to propose approaches that are not fully in alignment with REGDOC-2.2.3, particularly for novel reactor designs such as SMRs. For example, a requirement for oneyear plant experience cannot be demonstrated for a new design. In addition, details of operator certification may not be available at time of licence application, particularly for large projects which could take multiple years for construction. It is unclear what level of detail is being requested at this stage of a project.</p> <p>Suggested Change: Revise Section 4.2.4 to say, 'for positions requiring certification as set out in REGDOC-2.2.3, Volume III ... the application should include details ...' It should also include guidance or the use of graded approach on how REGDOC-2.2.3, Volume III is applicable to other reactor designs.</p> <p>MAJOR Impact on Industry: The regulatory requirements should be technology neutral and be able to account of personnel certification requirements for SMR design and operation. Inability to provide requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delay to projects.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
i.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.2.5, Initial certification examinations and requalification tests	<p>The REGDOC states 'the application shall describe an examination program ... in accordance with REGDOC-2.2.3 Volume III ...' and 'the application shall address the CNSC examination guides EG1 ... and EG2...'</p> <p>There is no statutory requirement for the examination program to comply with REGDOC-2.2., Volume III, EG1, and/or EG2. Accordingly, these statements should be removed to reflect guidance, not requirements.</p> <p>Also, these three CNSC documents are CANDU specific:</p> <ul style="list-style-type: none"> • EG1, Requirements and Guidelines for Written and Oral Certification Examinations for Shift Personnel • EG2, Requirements and Guidance for Simulator-based Certification Examinations for Shift Personnel at NPPs • Requirements for the Requalification Testing of Certified Shift Personnel at Nuclear Power Plants, revision 2. <p>Suggested Change: Remove this section.</p> <p>MAJOR Impact on Industry: The regulatory requirements should be technology neutral. Also, this draft does recognize these are construction projects. This creates a large overlap of requirements (redundant) between Construction & Operating licences. As presently written, draft REGDOC-1.1.2 is nearly identical to REGDOC-1.1.3, Licence Application Guide: Licence to Operate a Nuclear Power Plant.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
j.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.3, Operating Performance and 4.3.1, General considerations	<p>The REGDOC states 'the application shall include information on how the nuclear facility will adhere to any applicable provincial legislation or other applicable codes and standards.'</p> <p>There is no statutory requirement to provide this information with an application to construct a nuclear facility. Additionally, the statement is far too broad. Extensive provincial legislation applies to activities required to construct a nuclear facility. While some of that provincial legislation could hypothetically fall within the mandate of the NSCA, much of it would not. Instead, if the CNSC has general expectations for the application of a licence to construct, those expectations should be made explicit.</p> <p>Suggested Change: Remove the statement.</p> <p>MAJOR Impact on Industry: This statement goes well beyond the mandate of the NSCA and includes items of provincial authority. Should the CNSC have general expectations relating a licence application, those expectations can and should be listed in the licence application guide.</p>
k.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.4, Safety analysis and 4.4.1, General considerations	<p>The REGDOC states that the 'PSAR includes a deterministic safety analysis, a probabilistic safety assessment (PSA) and a hazards analysis.' As written, it is not clear if this is requirement or guidance. As there is no statutory requirement to provide any of these three elements, the sentence must reflect guidance as to the content of the PSAR. This sentence should be revised to use the word 'should.'</p> <p>Suggested Change: Revise Section 4.4.1 to state 'the PSAR should include a deterministic safety analysis, a probabilistic safety assessment (PSA) and a hazards analysis.'</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
l.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.4.2, Postulated initiating events and 4.4.3, Deterministic safety analysis	<p>The REGDOC states that “the safety analysis shall identify postulated initiating events...” and “the scope and classification of PIEs... shall meet the requirements specified in...” There is no statutory requirement for the safety analysis to identify postulated initiating events, nor is there any statutory requirement for the safety analysis to comply with the cited REGDOCs. Accordingly, these two sentences must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.4.2 to 'The safety analysis should identify postulated initiating events (PIEs) using a systematic methodology ... The scope and classification of PIEs in the application should meet the requirements specified in...!.</p>
m.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.4.2, Postulated initiating events and 4.4.3, Deterministic safety analysis	<p>The REGDOC states that 'the application shall include a deterministic safety analysis ... conducted in accordance with REGDOC-2.4.1.' There is no statutory requirement for the application to include a deterministic safety analysis, although it is acknowledged that the Class I NFR requires submission of a “preliminary safety analysis report”. In addition, there is no statutory requirement for deterministic safety analysis to comply with REGDOC-2.4.1. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.4.3 to 'The application should include a deterministic safety analysis to evaluate and justify safety and the reactor facility, conducted in accordance with REGDOC-2.4.1, Deterministic Safety Analysis.'</p>
n.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.4.4, Hazard analysis and 4.4.5, Probabilistic safety analysis	<p>The REGDOC states that “the applicant shall provide a hazard analysis that has been performed in accordance with the requirements of ...” There is no statutory requirement for the application to include a hazard analysis, although it is acknowledged that the Class I NFR requires submission of a “preliminary safety analysis report”. In addition, there is no statutory requirement for the hazard analysis to comply with the cited REGDOCs. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.4.4 to 'the applicant should provide a hazard analysis that has been performed in accordance with the requirements of ...!.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
o.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.4.4, Hazard analysis and 4.4.5, Probabilistic safety analysis	<p>The REGDOC states that “the application shall include a probabilistic safety assessment (PSA) conducted in accordance with the requirements specified in REGDOC-2.4.2...” There is no statutory requirement for the application to include a PSA, although it is acknowledged that the Class I NFR requires submission of a “preliminary safety analysis report”. In addition, there is no statutory requirement for the PSA to comply with REGDOC-2.4.2. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.4.5 to 'the application should include a probabilistic safety assessment (PSA) conducted in accordance with the requirements specified in REGDOC-2.4.2...!'.</p>
p.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.4.6, Severe accident analysis	<p>The REGDOC states that “the applicant shall demonstrate that a severe accident analysis has been performed in accordance with the requirements of ...” There is no statutory requirement for the application to include a severe accident analysis, although it is acknowledged that the Class I NFR requires submission of a “preliminary safety analysis report”. In addition, there is no statutory requirement for the severe accident analysis to comply with the cited REGDOCs. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.4.6 to 'the applicant should demonstrate that a severe accident analysis has been performed in accordance with the requirements of ...!'.</p>
q.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.4.7, Summary analysis and 4.4.8, Event mitigation	<p>The REGDOC states “the application shall provide the results of a review of event mitigation measures in accordance with the requirements of REGDOC-2.3.2...” There is no statutory requirement for the application to include the results of a review of event mitigation measures, although it is acknowledged that the Class I NFR requires submission of a “preliminary safety analysis report”. In addition, there is no statutory requirement for such a review to comply with REGDOC-2.3.2. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.4.8 to 'the application should provide the results of a review of event mitigation measures in accordance with the requirements of REGDOC-2.3.2...!'.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
r.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.5.3, Design principles and requirements	<p>Section 4.5.3, Design principles and requirements, sub-section “Design for reliability” states “the application shall include the basis for reliability targets that meet the requirements in section 7.6 of REGDOC-2.5.2.”</p> <p>There is no statutory requirement for the application to include a basis for reliability targets. In addition, there is no statutory requirement for that basis to comply with REGDOC-2.3.2. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.5.3, Design principles and requirements, Sub-section 'Design for reliability', to 'the application should include the basis for reliability targets that meet the requirements in section 7.6 of REGDOC-2.5.2.'</p>
s.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.5.3, Design principles and requirements	<p>Section 4.5.3, Design principles and requirements, sub-section “Radiation protection” states “the application shall include a description of the design approach adopted that demonstrates the facility design meets the requirements of the Radiation Protection Regulations and the radiation protection objectives and dose acceptance criteria in accordance with sections 4.1.1 and 4.2.1 of REGDOC-2.5.2.”</p> <p>There is no statutory requirement for the application to include a description of the design approach, although it is acknowledged that GNSCR, Section 3(1)(e), requires that the application shall contain “the proposed measures to ensure compliance with the Radiation Protection Regulations.” In addition, there is no statutory requirement for the facility design to comply with REGDOC-2.5.2. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.5.3, Design principles and requirements, sub-section “Radiation protection”, to state “the application should include a description of the design approach adopted that demonstrates the facility design meets the requirements of the Radiation Protection Regulations and the radiation protection objectives and dose acceptance criteria in accordance with sections 4.1.1 and 4.2.1 of REGDOC-2.5.2.”</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
t.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.5.5, Structure design	<p>The REGDOC states that “the application shall present relevant information on the design of the site layout and on civil engineering works and structures associated with the nuclear facility, with sufficient detail for CNSC staff to verify that the design is in accordance with ... REGDOC-2.5.2...”</p> <p>There is no statutory requirement for site layout to comply with REGDOC-2.5.2. (However, it is acknowledged that the Class I NFR, Section 3(a), requires that the application includes a “description of the site of the activity to be licensed”).</p> <p>Suggested Change: Revise Section 4.5.5, Structure design, to “the application should present relevant information on the design of the site layout and on civil engineering works and structures associated with the nuclear facility, with sufficient detail for CNSC staff to verify that the design is in accordance with ... REGDOC-2.5.2...”.</p>
u.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.9, Environmental protection and 4.9.1, General considerations	<p>The REGDOC states 'the application shall include a comprehensive set of environmental protection measures that meet the requirements of REGDOC-2.9.1.' There is no statutory requirement for the environmental protection measures to comply with REGDOC-2.9.1. (This comment acknowledges that the application is required to include 'proposed environmental protection policies and procedures', pursuant to the Class I NFR, Section 3(g).) Accordingly, this sentence must be revised to separate the guidance from the requirement.</p> <p>Suggested Change: Revise Section 4.9.1, General considerations, to 'the application shall include proposed environmental protection policies and procedures. The application should include a comprehensive set of environmental protection measures that meet the requirements of REGDOC-2.9.1.'</p>
v.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.9.5, Protection of the public and 4.9.6, Environmental risk assessment	<p>The REGDOC states 'the application shall include an environmental risk assessment.' There is no statutory requirement to complete or to submit an environmental risk assessment as part of an application for a licence to construct a nuclear facility. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.9.6 to read, 'an environmental risk assessment should be completed prior to licence to construct application.'</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
w.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.10, Emergency management and fire protection and 4.10.1, General considerations	<p>The REGDOC states 'the application shall describe an emergency preparedness program that meets the requirements of: REGDOC-2.3.1 [and] REGDOC-2.10.1.' There is no statutory requirement for the emergency preparedness program to comply with REGDOC-2.3.1 and/or REGDOC-2.10.1. Accordingly, this sentence must be revised to reflect guidance, not requirement. This comment acknowledges the statutory requirement for an application to include 'the proposed measures to control releases of nuclear substances and hazardous substances into the environment', pursuant to the Class I NFR, Section 5(k).</p> <p>The REGDOC also states 'the application shall provide proposed timelines and milestones for development of provisions ...' There is no statutory requirement for the application to provide timelines. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Revise Section 4.10.1, General considerations, to read:</p> <ul style="list-style-type: none"> • 'The application should describe an emergency preparedness program that meets the requirements of: REGDOC-2.3.1 [and] REGDOC-2.10.1.' • 'the application should provide proposed timelines and milestones for development of provisions'
x.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.11, Waste management and 4.11.1, General considerations	<p>The REGDOC states 'the application shall provide proposed timelines and milestones for development of provisions for waste management during fuel-in commissioning and reactor facility operation.' There is no statutory requirement for the application to provide timelines and milestones for development of waste management provisions applicable to potential future licensed activity. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>Suggested Change: Remove the section, as per the comment above. Otherwise, revise to 'the application should provide proposed timelines and milestones for development of provisions for waste management during fuel-in commissioning and reactor facility operation.'</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
y.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.11.3, Waste characterization, 4.11.4, Waste minimization and 4.11.5, Decommissioning practices	<p>(for section 4.11.5): The REGDOC states 'the application shall include a preliminary decommissioning plan for the work required to decommission the reactor facility, in accordance with REGDOC-2.11.2.' There is no statutory requirement for the preliminary decommissioning plan to comply with REGDOC-2.11.2. Accordingly, this sentence must be revised to reflect guidance, not requirement. However, this comment acknowledges the statutory requirement for the application to include a preliminary decommissioning plan, pursuant to Class I NFR, Section 3(k).</p> <p>Suggested Change: Revise Section 4.11.5, Decommissioning practices, to 'the application shall include a preliminary decommissioning plan for the work required to decommission the reactor facility. The preliminary decommissioning plan should be in accordance with REGDOC-2.11.2.'</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
z.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.12.1, General considerations	<p>Licenses seek further clarity on the following:</p> <ol style="list-style-type: none"> 1. The REGDOC states 'the application shall describe a security program that meets the requirements' of REGDOC-2.12.1, Volume I, REGDOC-2.12.1, Volume II, REGDOC-2.12.2, REGDOC-2.12.3, and REGDOC-2.2.4. There is no statutory requirement for the security program to comply with any or all of these REGDOCs. Accordingly, this sentence must be revised to reflect guidance, not requirement. However, this comment acknowledges the statutory requirement for the application to include a description of elements of the security program, pursuant to NSR, Section 3. 2. The guidance for security-related information is not consistent with other guidance for sensitive information throughout the document. Specifically, Section 4.12.1 refers to 'Guidance Document on Confidential Filings.' However, in other sections of the REGDOC, reference is made to REGDOC-2.12.3 and the TBCS Policy on Government Security. References to guidance with respect to sensitive information should be consistent throughout the licence application guide. 3. The REGDOC states 'the application shall provide proposed timelines and milestones for development of provisions for security during fuel-in commissioning and reactor facility operation.' There is no statutory requirement for the application to provide proposed timelines for the development of activities that are relevant to a potential future licensed activity. Accordingly, this sentence must be revised to reflect guidance, not requirement. <p>Suggested Changes: Revise this section:</p> <ol style="list-style-type: none"> 1. To read, 'The application should describe a security program that meets the requirements' of REGDOC-2.12.1, Volume I, REGDOC-2.12.1, Volume II, REGDOC-2.12.2, REGDOC-2.12.3, and REGDOC-2.2.4. 2. To refer to REGDOC-2.12.3 instead of 'Guidance Document on Confidential Filings.' 3. To read, 'The application should provide proposed timelines and milestones for development of provisions for security during fuel-in commissioning and reactor facility operation.' "

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
aa.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.12.4, Security practices, 4.12.5, Security training and qualification and 4.12.6, Cyber security	<p>The REGDOC states 'the application shall describe the measures in place to ensure response workers are trained and capable of performing the duties described in Section 30 of the Nuclear Security Regulations and in accordance with [REGDOC-2.12.1, Volume I].'</p> <p>There is no statutory requirement for the security program to comply with REGDOC-2.12.1, Volume I and no need for this information during the construction phase.</p> <p>Suggested Change: Remove this section as this does not apply during the construction phase of a project.</p>
bb.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.13, Safeguards and non-proliferation	<p>The REGDOC states that this section 'addresses the requirements' of the Canada/IAEA safeguards agreements (INFCIRC/164 and INFCIRC/164/Addendum 1).</p> <p>However, the safeguards agreements place no statutory requirements upon an applicant for a licence. Instead, the agreement between IAEA and the Government of Canada should be—and are—executed through legal requirements under the NSCA and through activities undertaken by the CNSC. Therefore, the REGDOC incorrectly implies that requirements of INFCIRC/164 and INFCIRC/164/Addendum 1 directly apply to the application. Instead, the obligation of the applicant is with respect to the NSCA alone.</p> <p>Note as well that INFCIRC/164 and INFCIRC/164/Addendum 1 were not cited in Section 1.3., Relevant legislation, nor in Appendix A, Legislative Clauses. In order to avoid confusion, the REGDOC should be revised to remove any implication that INFCIRC/164 and INFCIRC/164/Addendum 1 directly apply to the applicant and the application. However, this comment acknowledges the statutory requirements for the applicant and licensee to comply with the NSCA (doing so will ensure that Canada meets its obligation to the IAEA).</p> <p>Suggested Change: Revise to this section to contain guidance applicable to licence to construct, such as the DIQ; and remove the licence to operation application requirements.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
cc.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.13.1, General considerations and 4.13.2, Nuclear accountancy and control	<p>The REGDOC states that 'the application shall describe how the arrangements address the requirements in REGDOC.2.13.2... and REGDOC-2.13.1... and are in accordance with ... REGDOC-2.5.2.'</p> <p>There is no statutory requirement for the safeguards arrangements to comply with REGDOC-2.13.2, REGDOC-2.13.1, and/or REGDOC- 2.5.2. Accordingly, this sentence must be revised to reflect guidance, not requirement. However, this comment acknowledges that some statutory requirements may be embedded in any REGDOC. Any such statutory requirement would of course apply (not because it is cited in the REGDOC, but because it is a requirement under the NSCA)."</p> <p>Suggested Change: Revise Section 4.13.1, General considerations, to 'the application should describe how the arrangements address the applicable requirements in REGDOC.2.13.2... and REGDOC-2.13.1... and are in accordance with ... REGDOC-2.5.2.'</p>
dd.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.14, Packaging and transport, 4.14.1, Package design and maintenance, 4.14.2, Packaging and transport program and 4.14.3, Registration for use	<p>The REGDOC states that 'the applicant shall describe the measures in place to ensure compliance with all requirements of the <i>Packaging and Transport of Nuclear Substances Regulations, 2015</i>, and the <i>Transportation of Dangerous Goods Regulations</i>.'</p> <p>There is no statutory requirement for the application to describe arrangements in place to comply with the TDG Regulations. Accordingly, this sentence must be revised to reflect guidance, not requirement.</p> <p>However, this comment acknowledges the statutory requirement to describe the measures in place with respect to the <i>Packaging and Transport of Nuclear Substances Regulations, 2015</i>, pursuant to the GNSCR, Section 3(1)(e).</p> <p>Suggested Change: Revise Section 4.14.2, Packaging and transport program, to 'the applicant shall describe the measures in place to ensure compliance with all requirements of the <i>Packaging and Transport of Nuclear Substances Regulations, 2015</i>. The applicant should describe the measures in place to ensure compliance with the <i>Transportation of Dangerous Good Regulations</i>.'</p>
ee.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power	Sections 5.0, Other Matters of Regulatory Interest, 5.1, Reporting	<p>Licenses have the following concerns with the section on reporting requirements:</p> <ol style="list-style-type: none"> 1. The title of the document has changed from 'Licence to Construct a Nuclear Power Plant' to 'Licence to Construct a Nuclear Reactor Facility' and thus including Class-1b nonpower reactor facilities. Yet this draft does not include reporting as per REGDOC-3.1.2, Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills.

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
	(NB Power), and Ontario Power Generation (OPG)	requirements and 5.2, Public information and disclosure program	<p>2. The REGDOC states that 'the applicant shall describe how the reporting and trending programs, processes and procedures meet the requirements of REGDOC-3.1.1.' There is no statutory requirement for the reporting program to comply with REGDOC-3.1.1. Additionally, it is not clear that REGDOC-3.1.1 should apply during licensed construction activities. Accordingly, the reference to REGDOC-3.1.1 should be removed, as it does not reflect requirement, and does not represent appropriate guidance. However, this comment acknowledges that statutory requirements for reporting do apply to applicants for a licence (e.g., GNSCR, Section 15) and to licensees in general.</p> <p>3. The REGDOC lists 'reporting requirements' as an element of 'other regulatory areas.' Typically, reporting requirements are included as part of the 'operating performance' SCA (see, for example, Appendix B). For clarity and consistency, it would be appropriate to move reporting requirements to Section 4.3, Operating performance.</p> <p>Suggested Changes: CNSC staff is urged to amend this section to:</p> <ol style="list-style-type: none"> 1. Address reporting for Class-1b non-power reactor facilities and include appropriate text for reporting under REGDOC-3.1.2, Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills. 2. Read, 'The applicant should describe how the reporting and trending programs, processes, and procedures meet the statutory reporting requirements under the NSCA.' 3. Move Section 5.1 to a sub-section within Section 4.3, Operating performance. <p>MAJOR Impact on Industry: Lack of clarity could delay the licensing process and project schedules while overly prescriptive “guidance” could stifle innovative approaches.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
ff.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 5.0, Other Matters of Regulatory Interest, 5.1, Reporting requirements and 5.2, Public information and disclosure program	<p>The REGDOC states 'the applicant shall describe how their proposed public information and disclosure program... meets the requirements in REGDOC-3.2.1.' There is no statutory requirement for the public information and disclosure program to comply with REGDOC-3.2.1. Accordingly, this sentence must be revised to reflect guidance, not requirement. However, this comment acknowledges the statutory requirement for the application to include a proposed public information and disclosure program, pursuant to the Class I NFR, Section 3(j).</p> <p>Suggested Change: Revise Section 5.2, Public information and disclosure program, to 'the applicant shall describe their proposed public information and disclosure program, which should meet the requirements in REGDOC-3.2.1.'</p>

Table E: Theme: This licence application guide applies to a construction project, not for ongoing operations (this table consolidates all specific comments received that have been consolidated into comment #NN)

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
I.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 2.5, Completing the licence application	<p>Licensees have significant concerns with the following passages:</p> <ol style="list-style-type: none"> 1. The REGDOC says the applicant “shall” submit improvement plans and “shall” identify standards to be met. Additionally, it says the applicant “shall” provide a performance assessment. The mandatory “shall” does not have a statutory basis. Unless REGDOC-1.1.2 is cited in a licence, the “shall” has no weight in this context 2. More importantly, improvement plans and performance assessments do not belong in a licence to construct. These are more appropriate during licence renewals, or licences to operate. The REGDOC is asking for information that would not exist for first constructors 3. The need to cite 'other' codes and standards as per the 1st sentence of the 2nd paragraph should be clarified. Codes and standards are not regulatory documents, per se. <p>Suggested Change: CNSC staff is urged to:</p> <ol style="list-style-type: none"> 1. Either remove the references to improvement plans and performance assessments or note that, in the case of a licence renewal, 'the applicant should submit improvement plans' and where changes are planned, 'the applicant should identify the standard to be met.' 2. Correct Section 2.5 to note that, in the case of a licence renewal, 'the applicant should provide a statement of performance assessment where warranted.' 3. Amend the 1st sentence of the 2nd paragraph to read, 'The application should cite CNSC regulatory documents, and other codes and standards that will govern program objectives that demonstrate the applicant's ability to implement the safety and control measures.' <p>MAJOR Impact on Industry: It is important to maintain a clear distinction between requirements and guidance in all aspects of the regulatory framework. By citing items like improvement plans and performance assessments, this draft does not seem to recognize these are construction projects not ongoing operations. Firsttime constructors cannot be required to submit information that will not exist. A requirement to submit an improvement plan, if not warranted, will result in unnecessary project work.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
II.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.2, Management system	<p>As per the previous comment, the level of detail expected in this section is unrealistic at time of licence to construct application. Large construction projects will typically involve multiple contractual partners including the licensee, technology developer and EPC organizations. Therefore, it is unlikely the requested detail will be finalized at the time of a licence to construct application.</p> <p>Suggested Change: The CNSC is urged to provide rationales, guidance, and examples on what information is to be provided at the various phases of a project including the construction, commissioning and operation stages.</p> <p>MAJOR Impact on Industry: A proponent's inability to provide requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delays to projects.</p>
III.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees have a series of significant concerns and requests for clarity with the sub-section on Organization. Once again, this draft document is seeking information that is either overly broad, not available in the construction phase, speculative or geared toward existing, large-scale organizations.</p> <p>Suggested Change: CNSC staff is urged to revisit this entire section to ensure it seeks information that is applicable to all potential applicants and available at the time of a licence to construct application.</p> <p>MAJOR Impact on Industry: This document appears to have been written exclusively for current CANDU designs and construction by large utilities. Will there be another licence to construct for SMRs, or is this exclusive to all makes of nuclear models? This lack of clarity could weaken Canada's ability to capitalize on first-mover advantage as outlined in the SMR Roadmap.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
IV.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'ensure the right resources are available at the right time with the right skills and experience to meet the core capabilities of the organization at all stages of the reactor facility's lifecycle.'</p> <p>Suggested Change: Remove this reference.</p> <p>MAJOR Impact on Industry: This is overly broad at this phase of a potential project. A proponent's inability to provide requested detail at the time of a licence to construct application will delay licensing timelines and cause undue delays to projects.</p>
V.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'In most cases, the applicant is also the responsible organization that will later operate the reactor facility.'</p> <p>Suggested Change: Remove this reference.</p> <p>MAJOR Impact on Industry: This is speculative and does not recognize that this may be different for the construction of SMRs.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
VI.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licenses believe the following is not appropriate guidance at this phase of a potential project:</p> <ul style="list-style-type: none"> • “Top-level organizational charts with references to the full organizational charts (including the staffing levels)”. <p>It’s unclear why staffing levels are pertinent for this application to the regulator. Staffing level can be dependent on many factors and set by business objectives.</p> <ul style="list-style-type: none"> • “The application should describe the resource strategy, indicating the quantity of resources and the mix of disciplines and skills required as construction progresses through the various phases of the project (that is, design, pre-construction, construction, commissioning and operation).” <p>Is the same level of detail for resource identification required for all phases of licensing? It’s unclear why resource strategies are pertinent for this application. Resources and the mix of disciplines can depend on many factors and are set by business objectives.</p> <p>Suggested Change: Remove the inclusion of staffing levels and resource strategy.</p> <p>MAJOR Impact on Industry: This section implies a minimum staff complement as required for a larger organization. This would start to drive business objectives and models that would render SMRs non-cost competitive. Staffing levels (i.e. minimum complement) are used by existing licensees to stipulate the minimum number of required resources to respond to a station emergency (at an operating facility). There is no such requirement for any facility personnel not credited in this function. Therefore, the number of staff outside of the “minimum complement” is at the discretion of the organization and not within the jurisdiction of the regulator.</p> <p>Similarly, requiring a resource strategy is inappropriate in this document. As per earlier comments, the regulator should not insert itself into the business functions of an organization as long as licensees can demonstrate that work is being performed to the expected quality standard by qualified individuals (irrespective of who employs them).</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
VII.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'verification that adequate organizational structures and resources will be in place to meet the nuclear safety management needs of the licensed facility or activity.'</p> <p>It is unclear what is implied by 'verification.' How is 'adequate' defined? In addition, this statement seems to focus solely on nuclear safety. It is equally relevant to maintenance, operation, other business functions, namely that the structure of the organization needs to meet the needs of the business it is conducting.</p> <p>Suggested Change: Clarify what is meant by 'verification' or 'adequate.' Lack of clarity in expectation could cause delays to licensing process.</p>
VIII.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees believe the following is not an accurate reflection of the industry's safety culture and inappropriate guidance at this phase of a potential project: "confirmation that the applicant is in control of the licensed facility and activities and will not be subject to undue influence by any other organization."</p> <p>How would this be practically implemented? Business objectives and policies seek to control behaviours through code of conduct.</p> <p>Suggested Change: Remove this statement.</p> <p>MAJOR Impact on Industry: Implementation would be costly and hard to validate. At best, it creates an administrative burden for very little impact to nuclear safety at this stage of a project. Values can be informed through code of conduct policies. As written, this statement is counter to the industry's well-established safety culture as described by INPO/WANO and unnecessary to demonstrate at this phase.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
IX.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'The design principles used to develop the organizational structure; some examples of design principles are:</p> <ul style="list-style-type: none"> • number of layers of hierarchy • length of decision-making chains • scope of managerial control • policy for the use of contracted resources to supplement inhouse capability' <p>It is hard to see the relevance of this to regulation. A business model and structure is to be determined by business objectives, which will change with time and circumstance.</p> <p>Suggested Change: Remove this statement and its supporting bullets.</p> <p>MAJOR Impact on Industry: This is overly broad and irrelevant at this phase of a potential project.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
X.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'The approach taken to ensure the applicant has all the capabilities necessary to provide nuclear safety and ensure the integrity of the safety case, including how the applicant will retain sufficient in-house core capability to:</p> <ul style="list-style-type: none"> • manage the licensed facility and activities • prevent degradation of the in-house core capability through over-reliance on contractors • maintain technical subject matter expertise for all topics necessary for nuclear safety, • including “intelligent customer” roles where expertise is contracted out • be an “intelligent customer” for items or services procured from the supply chain' (*please see [other comment] for a related concern with this particular bullet) <p>This seems to be defining business objectives and organizational structure. A business may choose to maintain no internal capability services and may make use of other methods to fulfill services as an intelligent customer. This also inappropriately presumes a business model where core capabilities are always in house.</p> <p>Suggested Change: Remove this statement and its supporting bullets.</p> <p>MAJOR Impact on Industry: Implementation would be impractical and costly. This would start to drive business objective and models that would render SMR projects non cost-competitive.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XI.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.1.3, Organization	<p>Licenses believe the following is not appropriate guidance at this phase of a potential project: "The application should describe the resource strategy, indicating the quantity of resources and the mix of disciplines and skills required as construction progresses through the various phases of the project (that is, design, preconstruction, construction, commissioning and operation)."</p> <p>Once again, this seems to be defining the managing of a business staffing levels, which will depend on how the business wishes to proceed in execution of a business model. This is beyond expectations for a management system outlined in CSA N286 and REGDOC-2.1.1.</p> <p>Suggested Change: Remove this statement or revise the document to more accurately recognize the level of detail available at the various phases of licensing.</p> <p>MAJOR Impact on Industry: Implementation would be impractical and costly. This would start to drive business objective and models that would render SMR projects non cost-competitive."</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XII.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	<p>Section 4.1.4, Performance assessment, improvement and management review;</p> <p>Section 4.1.5, Operating experience;</p> <p>4.1.7, Safety culture;</p> <p>4.1.9, Business continuity;</p> <p>4.2.2, Human performance program</p>	<p>Similar to [the comment for section 2.5], licensees believe the sections on Performance Assessment, OPEX, Safety Culture, Business Continuity and Human Performance do not belong in a licence to construct. These are more appropriate during licence renewals, or licences to operate. The REGDOC is asking for information that would not exist for first constructors.</p> <p>Suggested Change: Either remove the references to Performance Assessments, OPEX, Safety Culture, Business Continuity and Human Performance or note that, in the case of a licence renewal, applicants should submit information on these topics.</p> <p>MAJOR Impact on Industry: Although 'should' is stated, these sections imply that all aspects of these programs are required. Unless REGDOC-1.1.2 is cited in a licence, it cannot impose requirements. Again, this draft does not appropriately recognize these are construction projects, not ongoing operations. First-time constructors cannot be required to submit information that will not exist.</p> <p>This identical comment was submitted for sections 4.1.4, 4.1.5, 4.1.7, 4.1.9, and 4.2.2.</p>
XIII.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.2.4, Personnel certification	<p>Licensees believe the following is not appropriate guidance at this phase of a potential project: 'The application should describe the program and schedule established for the certification of personnel for work relating to fuel-in commissioning and operation of the reactor facility.'</p> <p>References to certified positions and fuel loading in a licence to construct application are misplaced and cause more confusion than clarity.</p> <p>Suggested Change: Remove this section.</p> <p>MAJOR Impact on Industry: This draft does recognize these are construction projects. This creates a large overlap of requirements (redundant) between Construction & Operating licences. As presently written, draft REGDOC-1.1.2 is nearly identical to REGDOC-1.1.3, Licence Application Guide: Licence to Operate a Nuclear Power Plant.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XIV.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.2.6, Work organization and job design	<p>Licensees believe the section on Work Organization is not required at this phase of a potential project. Staffing levels and minimum complement considerations are not applicable for a construction site. They are business/financial considerations only and not related to nuclear safety. Nor is timeliness for construction.</p> <p>Suggested Change: Remove this section.</p> <p>MAJOR Impact on Industry: This creates a large overlap of requirements (redundant) between Construction & Operating licences. As presently written, draft REGDOC-1.1.2 is nearly identical to REGDOC-1.1.3, Licence Application Guide: Licence to Operate a Nuclear Power Plant.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XV.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	<p>Section 4.2.7, Fitness for duty;</p> <p>Sections 4.3.3, Safe operating envelope, 4.3.4, Outage management performance and 4.3.5, Accident and severe accident management and recovery;</p> <p>Sections 4.4, Safety analysis and 4.4.1, General consideration ;</p> <p>Section 4.5.3, Design principles and requirements</p>	<p>As per the previous comments, the sections on Fitness for Duty, Readiness for Operation, SOE, Outage Management, Accident and Severe Accident Management, Safety Analysis, Identification of Plant States & Operational Configuration are requirement for a Power Reactor Operator Licence. They are inappropriately included in guidance on how to apply for a licence to construct. In particular, the “Readiness for Operation” section expects a disproportionate amount of detail at time of application for a construction licence, particularly for a first-of-a-kind project such as an SMR.</p> <p>Suggested Change: Remove these sections.</p> <p>MAJOR Impact on Industry: This draft does appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety. Any guidance in future drafts needs to provide some flexibility with regards to the level of development needed for a construction licence application. A proponent’s inability to provide the requested detail at time of licence to construct application will delay licensing timelines and cause undue delays to projects.</p> <p>[CNSC’s note: The identical comment was submitted for sections 4.2.7, 4.3.3, 4.3.4, 4.3.5, 4.4, 4.4.1, and 4.5.3.]</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XVI.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.10, Emergency management and fire protection and 4.10.1, General considerations	<p>Licenses understand that a limited fire protection program would be expected for construction, but not an emergency management program during the construction phase.</p> <p>Also, the descriptions and requirements in this section should align with CSA N1600 - General Requirements for Emergency Management Programs.</p> <p>Suggested Change: Revise this section to:</p> <ul style="list-style-type: none"> • Indicate that a limited fire protection programs would be expected for construction, but not a full emergency management program. • Add a reference to CSA N1600 and replace the list of four program elements in 4.10.1 with the following: <ul style="list-style-type: none"> a) program management; b) planning basis; c) communication; d) nuclear emergency response plan and procedures; e) nuclear emergency recovery plan and procedures; f) training; g) facilities and equipment maintenance; h) public awareness and education; and i) exercises." <p>MAJOR Impact on Industry: This draft does not appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety.</p> <p>Without a clear reference to CSA N1600, the requirements are open to interpretation and may not align with expectations.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
C.VII.	Global First Power	Section 4.10.2, Nuclear emergency preparedness and response	<p>Per the note at the beginning of section 4.10, "This SCA includes conventional emergency and fire response." However, section 4.10.2 is on "Nuclear emergency preparedness and response" and is an identical copy of the similar section from REGDOC-1.1.3 (re Licence to Operate)</p> <p>Suggested Change: Section 4.10.2 should be removed from REGDOC- 1.1.2, otherwise will be very confusing for licence applicants and users of this REGDOC.</p> <p>Major Impact on industry: This draft does not appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
VIII.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.11, Waste management and 4.11.1, General considerations	<p>As per [the comment for section 4.4.1], the section on waste management is a requirement for a Power Reactor Operator Licence. It is inappropriately included in the guidance on how to apply for a licence to construct.</p> <p>Also, the following paragraphs contradict one another:</p> <ul style="list-style-type: none"> • 'The waste management SCA covers internal waste-related programs that form part of the facility's operations up to the point where the waste is removed from the facility to a separate waste management facility.' • '... , and its transfer to the waste storage facility or an authorized facility.' <p>One states the removal of waste from the facility is outside the scope of the SCA, the other includes the transfer of waste. Industry assumes the former is correct and that the latter should be removed from this SCA if the entire section is not removed.</p> <p>Suggested Change: Remove this section.</p> <p>MAJOR Impact on Industry: During construction, waste management would be limited to conventional waste. As such, this draft does not appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety. Any guidance in future drafts needs to provide some flexibility with regards to the level of development needed for a construction licence application. A proponent's inability to provide the requested detail at time of licence to construct application will delay licensing timeline and cause undue delay to projects.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XIX.	Global First Power	Sections 4.11, Waste management and 4.11.1, General considerations	<p>Paragraph 1 of Section 4.11.1 requires the applicant to 'address management of hazardous substance wastes', i.e. not including radioactive waste recognizing that the application's scope is construction including fuel-out (or phase A) commissioning.</p> <p>Paragraph 2 of Section 4.11.1 then requires the application to 'provide proposed timelines and milestones for development of provisions for waste management during fuel in commissioning and reactor facility operation.' (thus, it is limited to timelines and milestones).</p> <p>However, the rest of Section 4.11.1 and the entire following sections 4.11.2 through and including 4.11.4 are almost identical with the corresponding sections of REGDOC-1.1.3 (for Licence to Operate) and notwithstanding that 'overall' could mean 'general' (see above), it seems that CNSC is requiring the construction licence application to include the same scope on waste management as for the operating licence application; that is - to include also information on radioactive wastes (which contradicts the first paragraph of Section 4.11.1).</p> <p>Suggested Change: CNSC is requested to revise the entire sections 4.11.1 to 4.11.4 and scrub them to remove all unnecessary references to radioactive wastes and associated requirements/expectations, or limit requesting radioactive waste information only to 'timelines and milestones'. Otherwise, the entire section will remain very confusing for licence applicants and users of this REGDOC.</p> <p>MAJOR Impact on Industry: During construction, waste management would be limited to conventional waste. As such, this draft does not appropriately recognize these are construction projects, not ongoing operations. Expectations for information of this kind, which is out of sequence for a potential project, would require significant resources with no corresponding improvement to nuclear safety. Any guidance in future drafts needs to provide some flexibility with regards to the level of development needed for a construction licence application. A proponent's inability to provide the requested detail at time of licence to construct application will delay licensing timeline and cause undue delay to projects.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XX.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Section 4.12, Security	<p>This section 4.12 is identical with the corresponding section from REGDOC-1.1.3. Therefore, it is not clear if the CNSC's expectations are identical for the two licence applications or, if different, what the differences would be. Clarification is needed on whether the scope would be limited for this phase and to extract the rest of the requirements from the current text.</p> <p>Sections 4.12.1 through 4.12.6, which are identical with REGDOC-1.1.3 content, should be left for that phase of licensing, for the applicant to comply with the requirements or provide the arguments that requirements are not applicable.</p> <p>Suggested Change: The guidance captured in this section should be specific to a licence to construct application.</p> <p>Section 4.12 should be reflective of a construction licence application and the fact that nuclear material will not be present. Furthermore, this section should be reflective of the pending changes to the Nuclear Security Regulations to move from a prescriptive regulation to a deterministic assessment based on risk.</p> <p>MAJOR Impact on Industry: This affects the scope of the application. The security response force requirements should be for this licensing phase and consider the unique features of the facility and reactor design.</p>
XXI.	Bruce Power, Canadian Nuclear Laboratories (CNL), Global First Power, New Brunswick Power (NB Power), and Ontario Power Generation (OPG)	Sections 4.12.4, Security practices, 4.12.5, Security training and qualification and 4.12.6, Cyber security	<p>The REGDOC states 'the application shall describe the measures in place to ensure response workers are trained and capable of performing the duties described in Section 30 of the Nuclear Security Regulations and in accordance with [REGDOC-2.12.1, Volume I].'</p> <p>There is no statutory requirement for the security program to comply with REGDOC-2.12.1, Volume I and no need for this information during the construction phase.</p> <p>Suggested Change: Remove this section as this does not apply during the construction phase of a project.</p>

	Reviewer	Section or Para.	Reviewer's Comment and Proposed Change
XII.	Global First Power	Section 4.13, Safeguards and non-proliferation	<p>This section 4.13 is identical with the corresponding section from REGDOC-1.1.3, with the exception of the statement in this draft REGDOC-1.1.2 that the applicant is encouraged to early engagement by completing the IAEA safeguards design information questionnaire.</p> <p>This is confusing and leaves it to the applicant to figure out what the difference would be (if any) between the licence to construct and licence to operate applications.</p> <p>Suggested Change: The CNSC should provide the applicable/adequate guidance and clarify the differences and expectations compared to Licence to Operate application, i.e. to specify what is required for construction licence application and to what level of detail (in cases where the requirements for operating licence application may be the same).</p> <p>Impact on Industry: Major as this would affect the scope of the application.</p>
XIII.	Global First Power	Sections 4.14, Packaging and transport, 4.14.1, Package design and maintenance, 4.14.2, Packaging and transport program and 4.14.3, Registration for use	<p>This section 4.14 is identical with the corresponding section from REGDOC-1.1.3. It is therefore not clear if the CNSC's expectations are identical for the two licence applications or if different, what the difference would be.</p> <p>We believe that because the Construction Licence includes only activities related to construction and fuel-out commissioning, the SCA on packaging and transport of nuclear substances to and from the facility do not apply, or at most, apply for a very limited scope (CNSC should define such scope).</p> <p>Suggested Change: The CNSC should better clarify the scope of this SCA specifically for construction licence application. At the minimum, CNSC is requested to include a note to recognize that the application covers construction and fuel-out commissioning and that any packaging and transport requirements will apply for nuclear substances that the applicant may intend to make use. Such substances would fall under the scope of "Nuclear Substances and Radiation Devices Regulations", and to any sealed sources and radionuclides identified in Table 1 of REGDOC-2.12.3.</p> <p>Impact on Industry: Major as this would affect the scope of the application.</p>