Public Consultation
Draft REGDOC-2.9.2, *Controlling Releases to the Environment*
March 29, 2021 – August 11, 2021
Comments received from public consultation / Commentaires reçus dans le cadre du processus de consultation

Comments received:
• during first round (March 29 to August 11, 2021): 51 comments from nine (9) reviewers
Commentaires reçus :
• lors de la première période (du 28 mars au 11 août 2021: 51 commentaires reçus de neufs (9) examinateurs

Table A: Comments received on the draft document

	Reviewer	Section or Para. #	Reviewer's Comment and Proposed Change
1.	Canadian Nuclear Association (CNA)	Comment on the overall document	"The CNA appreciates the opportunity to comment on this draft REGDOC. To ensure its requirements and operational impacts are fully understood, licensees would welcome the opportunity to review future drafts as well to offer constructive feedback before this document is submitted to the Commission for approval and publication. During a collective review of this initial version, subject matter experts from CNA, Cameco, Bruce Power, Ontario Power Generation, New Brunswick Power, Hydro Quebec, Canadian Nuclear Laboratories, Nordion and Orano Canada found: 1.There is a duplication of authority with provincial regulators in non-radioactive areas throughout this draft, which increases the potential for regulatory confusion. 2.The document extensively discusses action levels and references CSA N288.8, Establishing and implementing action levels for releases to the environment at nuclear facilities, though much of the discussion doesn't align. When N288.8 is updated, future misalignment with this REGDOC could occur. For clarity and simplicity, licensees suggest future drafts of this REGDOC should reference N288.8 where appropriate and eliminate any discussion on how action levels should be developed. 3.As currently written, the methodology used to derive the release limits is not clear. 4.Similarly, there a lack of clarity regarding the meaning of Environmental Release Targets and how they will be applied. 5.Further guidance is required regarding the appropriate approach to release limits (risk-based/performance-based.)

2.	Ipsos Custodes		The CNSC must immediately reclassify this document from environmental protection to radiation protection. Except for "uranium mines and mills", all licensees must include in their radiation protection program two objects fundamental to this document. The CNSC must note that, aside from uranium mines and mills, there is no reference to an environmental protection program in the regulations made pursuant to the *Nuclear Safety and Control Act*. The first fundamental object is action levels. The CNSC and their their agents appointed under §16 of the *Nuclear Safety and Control Act* are trying to re-write regulations without actually going through the process of regulatory amendment. The definition of action level provided in the document is patently incorrect: "An indicator of a potential loss of control of part of a licensee's program(s) or control measure(s). Exceeding an action level signals a potential reduction in effectiveness of the program and/or control measure(s) and may indicate a deviation from normal operation. Exceeding an action level is not a non-compliance, but triggers a requirement for specific action to be taken." Section 6 of the Radiation Protection Regulations clearly states: "action level means a specific dose of radiation or other parameter that, if reached, may indicate a loss of control of part of a licensee's radiation protection program and triggers a requirement for specific action to be taken." The second fundamental object is to ascertain the quantity and concentration of any nuclear substance released as a result of the licensed activity. Virtually the entire REGDOC deals with the process of ascertaining the quantity (or concentration) of nuclear substance released as the result of a licensed activity. This process is exclusively the domain of the radiation protection program as required in the Radiation Protection Regulations §4(b). The Radiation Protection Regulations are clear that both action levels and the requirement to "ascertain the quantity and concentration of any nuclear substance released" are the responsibility of the radiation protection program alone. The CNSC recently had the Radiation Protection Regulations amended and chose not to rectify this. It is clear that the CNSC and their agents appointed under §16 of the Nuclear Safety and Control Act are in contempt of parliament and Her Majesty in Right of Canada. Since REGDOC-2.9.2 will require a re-write to revise this to radiation protection program fundamentals prior to issue, Ipsos Custodes requests additional time with the revised REGDOC to develop comments in line with current radiation protection good industry practice.

3.	Ipsos Custodes		There is no regulatory basis for requiring a 'BATEA assessment' as part of the licence application process. The CNSC and their their agents appointed under §16 of the Nuclear Safety and Control Act are trying to re-write regulations without actually going through the process of regulatory amendment. In no way is this statement in REGDOC-2.9.2 true: "the applicant or licensee shall conduct an assessment to identify the best available technologies, or the best available techniques for control …" et cetera. There is no regulatory basis for requiring a 'licensed release limit' as part of the licence application process. The CNSC and their their agents appointed under §16 of the Nuclear Safety and Control Act are trying to re-write regulations without actually going through the process of regulatory amendment. In no way is this statement in REGDOC-2.9.2 true: "the applicant or licensee shall submit to the CNSC: the locations of the proposed controlled release points …" et cetera. The CNSC must amend this REGDOC to use the imperatives "shall" or "must" only to denote bona fide regulatory requirements.

4.	CNA, Ontario Power Generation (OPG), Hydro-Quebec, Bruce Power, Canadian Nuclear Laboratories (CNL), NB Power and Cameco	Submit comments on section 1.2	**Industry Issue:** The Scope is unclear in several areas and reinforces industry's concerns in Theme #1 that this draft REGDOC too often duplicates the authority of provincial regulators in non-radioactive areas. For example: 1) The 2nd main bullet and its supporting sub-bullets on page 2 are unclear when they say: • "For the control of hazardous substances, by comparing the proposed maximum quantities and concentrations to be released to the environment associated with the design of the facility or activity under normal operation: • to federal, provincial, territorial or municipal environmental quality guidelines • Where any proposed maximum release exceeds the environmental quality guidelines, the information in this document shall be applied" What if there is no guideline and those selected by licensees are ambiguous (i.e. contaminated sites, drinking vs regular water)? Is there a definition for hazardous substance? Does that definition precipitate federal/provincial guidelines licensees can follow? *Please see comment #28 on section 5.1 for a related example. 2) The 5th sub-bullet on page 2 is unclear when it says, "for any radionuclide where the proposed maximum release is below the applicable CCLs (either generic or practice-specific), the CCLs are applied as the licensed release limits." Is this only applicable for facilities or activities other than Class I nuclear facilities and uranium mines and mills? If it is more broadly applicable, this implies that monitoring of some kind would need to be in place for these release points since comparison to regulatory limits is a criterion for monitoring in N288.5. Some facilities currently do not monitor all release points and there is concern this could drive monitoring for insignificant release paths. 3) The Note 1 on page 2 does not mention whether this document applies to estimated emissions. **Suggested Change:** For clarity, CNSC staff is urged to amend the Scope to: 1) Include the following, "This REGDOC will not apply to hazardous substance that were identified to have a negligible contribution to environmental risk in the ERA and/or are regulated by provincial requirements." 2) Include a section for Class I nuclear facilities and a section for other facilities, similar to REGDOC 2.9.1. 3) Confirm if this document applies to estimated emissions. **Impact on Industry:** As currently written, this draft REGDOC duplicates the authority of provincial regulators in non-radioactive areas. This increases confusion and the risk of regulatory non-compliance.

5.	CAN, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 1.2	**Industry Issue: Major** As per Themes #3 and #6, the requirements and methodologies used to derive release limits are unclear, as are the applications of some passages to decommissioning activities. For example: 1) The Scope's 1st paragraph says this document "applies to nuclear facilities or activities that, under normal operation, release or intend to release nuclear substances or hazardous substances to the environment, either through direct releases to air, surface water, sewer, or through the ground, including where natural or engineered barriers for control are proposed or incorporated and require control." Does this mean that release limits are not required during decommissioning activities? Are facilities in decommissioning considered in "normal operation" as per figure 4C or with a "major modification" as per figure 4B? For a nuclear power plant, what is "normal operation"? Is it only applicable when the station is generating electricity, the core is fully loaded and the heavy water systems are pressurized? 2) Section 4.2 raises questions about how the concept of BATEA applies for decommissioning activities. The document says, "A BATEA assessment shall contain the following elements…identification of the maximum predicted design release characteristics." Predicting the releases from decommissioning of one-of-a-kind facilities will be difficult, if not impossible. Similarly, doing an assessment on different technologies and how it changes the emissions estimate will be near impossible. 3) Section 5 discusses Licenced Release Limits, but does not clarify the status of release limits that have already been established and agreed with the CNSC? Can these legacy limits continue to be used? **Suggested Change:** CNSC staff is urged to clarify the requirements and methodologies used to derive release limits and: 1) Clarify the applicability of the document to facilities undergoing decommissioning and what is meant by "normal operation."2) Amend the 1st sentence in 4.2 to read, "A BATEA assessment shall may contain the following elements:" 3) Confirm that legacy limits already established and agreed with the CNSC can continue to be used. **Impact on Industry:** Predicting the releases from decommissioning of one-of-a-kind facilities will be difficult if not impossible. Unclear expectations increase the risk of regulatory uncertainty and confusion.
6.	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1 and 2.1.1	**Industry Issue: Clarification** The 1st paragraph says, "Facilities and activities with radiation risks are required to be designed, built, authorized, operated and maintained in a manner that prevents or minimizes radioactive releases …" Should this be risk-based? **Suggested Change:** Clarify if this should be risk-based.

7.	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1 and 2.1.1	**Industry Issue: Major** It is unclear from this draft which licensee will specify a constraint when there are multiple licensees in close proximity. **Suggested Change:** Provide guidance on how this could be accomplished (at the Bruce Power and Gentilly-2 sites, for example). **Impact on Industry:** Unclear expectations increase the risk of regulatory non-compliance.
8.	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1 and 2.1.1	**Industry Issue: Major** As per Theme #3, licensees have concerns with maximum release limits throughout the document, including the following passages from section 2.1.1:• The 1st paragraph on page 6, which reads, “The maximum predicted design … establishes the licensed release limits.” • The 1st full paragraph on page 8, which says, “The maximum releases associated with the approved optimized design (which includes the addition of a margin for operational flexibility) becomes the authorized release limits.” Industry is concerned that:• Setting the authorized release limits as the initial design maximum value may be overly prescriptive and may not consider future operational states for the facility.• The level of effort and uncertainty involved in an estimate of the maximum release from a facility is significant. What about the fact that the maximum predicted release for normal operations may be below the action level which is related to an accident scenario?• It’s unclear how authorized licensed release limits get authorized? Are they based on N288.8? Are they also applicable to non-radiological items? The CNSC has said the intent is not to replace or duplicate other legislation. How is applicability and adequacy determined?• Revision of release limits may also have negative impacts to public perception. > When applying optimization and setting authorized release limits, it is necessary to choose the time when doses are at the maximum value. The size of practice may change from year to year. Therefore, for optimization decisions, the relevance is the year when the practice reaches its maximum size. **Suggested Change:** For future drafts, CNSC staff is urged to: • Clarify the text throughout. For example, amend the 1st paragraph on page 6 to read, “The maximum predicted design quantities and concentrations corresponding to the year when the facility has reached its maximum size and is the best option (with respect to optimization), along with a margin of error to provide operational flexibility, establish the licensed release limits.” • Clarify how licensed release limits get authorized. **Impact on Industry**: As written, this approach may be overly prescriptive and not consider future operational states for facilities. The level of uncertainty involved in estimating emissions from new facilities can be quite significant. Turning these estimates into regulatory limits which would be considered a violation of the licence if exceeded is a potential error trap. In addition, as written, the guidance could lead to a situation where the release limit is calculated to be below the action level. This would require lowering of the action level, which could then lead to unnecessary exceedances and increased administrative burden and regulatory oversight.

9.	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1 and 2.1.1	**Industry Issue: Clarification** The 1st sentence beneath Figure 1 could be interpreted to require optimization beyond 10 uSv/year. Previous sections refer to 10 µSv/yr as the "de-minimus" dose, representing levels in which no further regulatory control is necessary. As written, this introduces the potential for misapplication of the optimization principle – or misinterpretations of the requirements by licensees or other stakeholders. **Suggested Change:** Revise to read, "…doses approximating 10 µSv/year are recommended as the level below which further optimization and application of BATEA is no longer necessary"
10	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1.2	**Industry Issue: Major** As currently written, page 8 of this section is unclear as to when mixing zone models apply. **Suggested Change:** For clarity, future drafts should state where mixing zone models apply, i.e. conventional or radiological effluent, thermal effluent. **Impact on Industry:** Unclear expectations and wording variations between related regulatory documents increase the risk of non-compliance
11	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1.2	**Industry Issue: Major** The EMS wording on page 9 is different than that in ISO 14001. Items identified through the ERA are not a requirement to be in the policy. **Suggested Change:** Revise future drafts to align with ISO 14001. Recommend it read, "An organization's environmental policy includes a commitment to continuous improvement, pollution prevention and can include a commitment to sustainable development and adaptive management." **Impact on Industry:** Unclear expectations and wording variations between related regulatory documents increase the risk of non-compliance

12	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.1.2	**Industry Issue: Major** As per Theme #5, there is a lack of clarity regarding the term “environmental release targets” and how these targets will be applied throughout this draft REGDOC. This includes the passage on page 8 which reads, “The results of the ERA are used to identify what contaminants or physical stressors require mitigation measures and the environmental release targets used to inform the design of such mitigation measures (see appendix B).” Licensees do not understand what this means. There is no definition for release target so it is unclear how it relates to the ERA or the release limit. *Please see comments 24, 39 and 44 for related examples. **Suggested Change:** Clarify what the term “environmental release targets” means and how it relates to the ERA or the release limit. **Impact on Industry:** Unclear expectations increase the risk of regulatory non-compliance.
13	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2	**Industry Issue: Major** The use of “maximum predicted design release" or the predicted design release could be interpreted as being the upper range of normal operations (e.g., 97.5th percentile of historical data). The maximum predicted design release value appears to be intended to be between the upper range of normal operations and the action level. The figures show that the upper range of normal operations, which is to be based on actual or predicted data (based on N288.8-17), is well below this “licensed release limit.” This is a concern in 5.1 where an existing facility can identify the maximum predicted design release concentrations and quantities based on historical performance data and it is a concern for operations that use a batch release system whereby the concentrations released are very controlled and only released when acceptable. **Suggested Change:** The licensed release limit should only be referred to as the licensed released limits or the authorized release limit to align with CSA N288.8-17 as per Theme #2. **Impact on Industry:** Confusion and uncertainty are created by introducing a term that is inconsistent with CSA standards.

14	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2	**Industry Issue: Clarification** As per Theme #2, Figure 2 is very similar to Figure 1 in CSA N288.8-17 and should be referenced for consistency. There are two different regions in Figure 2 that describe normal operations – "upper value of normal operation" and "Normal Operation/region of optimization (BATEA/ALARA)," which may create confusion. Figure 2 shows that the "maximum predicted design release" should be the same as the licensed release limit." This is not practicable as the maximum of normal operations likely falls between the upper value of normal operations (e.g., 95th percentile) and the action level based on N288.8-17. This would result in a licensed limit below the action level. **Suggested Change:** Revise Figure 2 to align with Figure 1 in CSA N288.8-17 and reference this figure as it is very similar and set the "maximum predicted design release" between the upper value of normal operations (e.g., 95th percentile) and the action level.
15	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2.1	**Industry Issue: Clarification** This section incorrectly describes administrative levels as the upper range of normal operation when the level may be lower or higher than the upper value of normal operation when all factors are considered. **Suggested Change:** Amend the 2nd sentence in the 2nd paragraph to read, "Exceeding the upper value of normal operation triggers internal investigation by the licensee."
16	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2.2	**Industry Issue: Clarification** The order of 2.2.2 and 2.2.3 should be reversed to list in order of importance: 1) upper value of normal operation, 2) action levels, 3) license release limits. This could also apply to Section 5 and 6 of the document. **Suggested Change:** Discuss action levels before licensed release limits within the document. This would result to changes in Section 2.2.2 and 2.2.3 and Section 5 and 6.
17	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2.2	**Industry Issue: Clarification** Clarity is sought for the sentence, "Licensed Release limits are applicable under normal operation" **Suggested Change:** Please clarify what is meant by normal operation.
18	Ecometrix	Submit comments on section 2.2.2	The licensed release limit is referred to as a "quantity" or "concentration". It is "set at the maximum predicted design release concentration and/or quantity." However, the maximum predicted design release is also characterized by "volume". An LRL may be set as an effluent concentration, but that would usually require an associated LRL for "volume" (= flow) since concentration in the environment depends on the release quantity (= flow x concentration). It is unclear if an LRL may be set for volume released (flow). Discussion of this issue would provide clarity.

19	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2.3	**Industry Issue: Major** Licensees have concerns with the passages on page 13 which read, “Action levels are proposed by the licensee and submitted for review and approval by the CNSC … Any revisions to action levels are subject to CNSC review and approval.”For changes to EALs and DRLs, current licence conditions handbooks (LCH) require the licensee to notify the CNSC (G.2. notification) and not obtain approval. An LCH should be the document that defines which items require CNSC acceptance and this requirement should not be in this REGDOC. **Suggested Change:** Licensees strongly urge staff to remove this requirement from the REGDOC. This section must align with licence conditions for both EALs and licenced release limits. **Impact on Industry:** CNSC review and approval would take more time and reduce the flexibility for making changes.
20	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2.3	**Industry Issue: Clarification** As per Theme #2, CSA N288.8 states the objective of the action level is to trigger an investigation to determine if a loss of control of the environmental protection program has occurred. Bullet 4 states it is a trigger for a specific action to be taken. **Suggested Change:** Amend text to reflect the objective of the action level as defined in CSA N288.8.
21	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 2.2.3	**Industry Issue: Clarification** Section 2.2.3 (3rd bullet at the top of page 13) and Section 6 (page 29, 2nd paragraph) state that exceeding an action level "may indicate a deviation from normal operation." This is inconsistent with Figure 2 where the range of normal operation covers any action level exceedance below the licensed release limit. Although an action level exceedance could be a deviation from normal operation, this would have to also exceed the licensed release limit and, therefore, should more accurately be called a licensed release limit exceedance. **Suggested Change:** For clarity, delete the 3rd bullet in section 2.2.3 beneath “Exceeding an action level”: Amend the 2nd sentence of the 2nd paragraph in section 6 to read, “Exceeding an action level signals a potential reduction in the effectiveness of the program and/or control measure(s)

22	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 3.1	**Industry Issue: Clarification** As per Theme #1, clarity is sought for the final bullet under Requirements, which requires licensees to "ensure that releases are not acutely lethal, in accordance with federal, provincial and territorial requirements **Suggested Change:** Clarify if licensees would be required to demonstrate/test for lethality even if they are below the threshold? Being below the guidelines should be enough proof.
23	OPG	Submit comments on section 3.2	**Industry Concern:** N/A The REGDOC does not clearly identify at what life stage of the facility's "normal operation" (i.e. construction, operations, or decommissioning) that License Release Limits will form part of the licence application. We understand that an existing DRL may apply from one stage to the next (such as from commercial operations to decommissioning) but it might not be clear if the "normal operation" decommissioning and refurbishment impacts must be considered at the time of application. This section notes the use of "adaptive management" plans for unmanaged risks, but examples identified do not mention refurbishment or decommissioning, which are neither unmanaged nor unknown. These activities are distinct overlays to commercial operations, with overlapping timelines and modified risks. **Suggested Change:** Clarify how important decommissioning and refurbishment activities are managed – is this "adaptive management", or are there distinct review steps, separate from the original licence review to consider? What is the scope of the review – is it adjunct to the existing limits, conditionally linked to operational status, etc.? Is this part of the licence for commercial operation? In addition, how "normal operation" can be defined while site is being end-stated. Can site use the existing operational limits (e.g., Action Level) until conditions stabilized from the operational phase to end of the stabilization phase? **Impact on Industry:** Impacts from decommissioning and refurbishment activities are not necessarily equivalent or less than during commercial operations. There is some indication that when operating parameters change significantly (i.e. reduction of dilution flows and elimination of powerhouse steam supply) some emissions adversely change. This kind of review must be anticipated and managed.

24	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 3.3	**Industry Issue: Major** There is a lack of clarity in this section. Specifically:1) On page 20, “unmanaged risk” requires further clarification as “evidence of significant increase in magnitude or spatial extent of a previously known risk” is an ambiguous definition. If significant risk is defined on the basis of statistical significance, then a very small statistically-significant change of no biological or ecological significance could result in unnecessary regulatory burden where no practical increase in risk exists.2) The timeline of “immediate” is extreme as per the final bullet under Requirements. Will the requirement to notify the Commission be included in REGDOC 3.1.1 and/or licence condition handbooks? **Suggested Change:** For future drafts, CNSC staff is urged to:1) Amend the note regarding unmanaged risk to read, “… evidence of a significant increase in magnitude or spatial extent of a previously known risk to an extent likely to have a measurable impact on ecological or biological health.” Define an “unmanaged risk” and provide more fulsome examples than those provided under the note on page 20. Also, define type of significance and provide criteria for determining the level of significance.2) Revise the final bullet under Requirements to either “in a timely manner” or “upon completion of the ERA” rather than “immediately.” **Impact on Industry:** As written, there is a potential for risks of no biological or ecological significance to be included as unmanaged risks where statistically-significant increases in risks have occurred. In addition, unclear expectations could lead to regulatory non-compliances, inconsistent application across the industry and additional administrative burden with no corresponding safety benefit.
25	OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 3.3	**Industry Issue: Major** These sections discuss new risks that may require adaptive management. Once a licensed limit is established, the document does not indicate how it can be removed if evidence suggests it is no longer needed. Also, an adaptive management plan should be allowed to be integrated into routine monitoring and reporting. **Suggested Change:** For future drafts, CNSC staff is urged to:• Add that new science or information or adaptive management may provide evidence to support the elimination of a licensed release limit.• Add the process to remove the limits.• Add the following phrase to both sections 3.3 and 8: “Once an adaptive management plan is established, it can be integrated in the facility’s routine monitoring and reporting.” **Impact on Industry:** As currently written, this creates regulatory burden to require managing a release limit that is no longer science-based.

26	OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 3.3	**Industry Issue: Major** As currently written, section 3.3 states a comprehensive BATEA assessment is not required for existing facilities under normal operation unless a new risk has been identified in the ERA that merits adaptive management. It is not clear what a comprehensive BATEA assessment is, or if this clause implies another form of BATEA assessment is required. Section 4 is also unclear on: 1) How to evaluate the BATEA assessment. What is considered "adequate?" 2) How to apply to hazardous contaminants and physical stressors that are regulated by other AHJs and already have limits in place. It is not clear how these regulatory limits should compare to 'environmental quality guidelines' and what exactly this is referring to. There are many limits to consider. Which one do licensees choose? **Suggested Change:** CNSC staff is urged to clarify section 3.3 to say that BATEA assessments are not required for existing facilities.In addition, amend section 4 to: 1) Define "adequate" outcomes and provide guidance for how to evaluate a BATEA assessment and criteria for how options should be assessed. 2) Clarify what is considered an environmental quality guideline. **Impact on Industry:** Unclear expectations could lead to regulatory non-compliances, inconsistent application across the industry and additional administrative burden with no corresponding safety benefit.
27	OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section 4.1	**Industry Concern: Clarification** The note on page 22 creates unnecessary confusion when it says, "Demonstration of a technology or technique as a best practice on a similar industry or activity indicates that the technology or technique is economically achievable." It is not the CNSC's re-sponsibility to deem something "'economically achievable." **Suggested Change:** CNSC staff is urged to delete the note and avoid confusion. Perhaps it could cross-reference REGDOC-2.9.1.

28	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 4.2	**Industry Issue: Major** As per Theme #5, the draft does not clearly identify how environmental release targets fit with existing or proposed thresholds and limits. Nor does it explain the intended purpose of these additional thresholds. If these targets are only part of the BATEA assessment process, perhaps this REGDOC should include a figure separate from Figure 2 to compare to relevant limits for context. The statement in Appendix B.1 which says, "Environmental release targets are not licensed release limits but are guides in the design and development of the maximum predicted design release concentrations or the quantities that become the licensed release limits" is inconsistent with Figure 2. That Figure shows the conceptual relationship of licenses release limits and that the license release limit is the same as the maximum predicted design release. **Suggested Change:** For future drafts, CNSC staff is urged to clarify 4.2, Appendix B.1 and Figure 2 to include how environmental release targets fit into the hierarchy of licensed release limits, action levels, maximum predicted design release concentrations and normal operational conditions. **Impact on Industry:** Unclear expectations increase the risk of regulatory non-compliance and administrative burden for licensees with no corresponding safety benefit.
29	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 4.3	**Industry Issue: Clarification** The last two bullets on page 22 are unclear when they say: • "identified as potentially exceeding federal, provincial, or territorial environmental quality guidelines before consideration of treatment • "identified within the ERA as meriting control" Where pre-existing limits are in place for hazardous substances, is the intention for the ERA to evaluate these limits? The ERA is designed to evaluate the effects on ecological receptors and human health, not to evaluate the existing regulatory action levels or licensed release limits. **Suggested Change:** CNSC staff is asked to clarify the intention of these bullets.

30	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5	**Industry Issue: Major** License release limits do not ensure "the protection of human health and environment" but rely on federal, provincial, territorial, and municipal requirements that use technology-based approaches, as noted in Section B.5.3. These approaches may include some risk and is why environmental effects monitoring programs are carried out as part of the MDMER. **Suggested Change:** The section overstates the protection that license release limits offer. For future drafts, staff is asked to remove the 2nd bullet that states the implementation of license release limits ensures. **Impact on Industry:** Without changes, this section creates confusion for the public and unreasonable expectations for licensees.
31	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5	**Industry Issue: Clarification** Licensees also found:1) Guidance is lacking on how to develop licensed release limits for hazardous contaminants and physical stressors.2) There is a lack of clarity on the criteria for determining when an ERA is "protective." Can an ERA be protective if screening criteria is not available? Is this equivalent to an HQ above 1.0? What about where the HQ is over 1 but further assessment shows no biological impact of the level of the substance? Additionally, the evaluation of the protectiveness of various provincial or federal criteria as having "no unreasonable risk" is far beyond the scope of the ERA. Some licensees use these criteria to evaluate the presence of risk but the evaluation of the criteria themselves is the job of government, not industry. 3) A lack of clarity regarding the 3rd bullet, which reads, "that the licensee is operating within the licensing basis for normal operation for that facility or activity."4) The 2nd sentence in the 3rd paragraph confusing when it says, "Exceeding a licensed release limit signals a loss of control of the environmental protection program and/or control measure(s) and that the licensee is operating outside the licensing basis". How is this different than action levels if they both have the same purpose? **Suggested Change:** For added clarity, staff is urged to:1) Clarify what an "applicable" standard guideline or objective for hazardous contaminant is and provide guidance for when there is no guideline or objective available for a particular contaminant.2) Provide a common methodology or criteria for determining when the ERA is considered "protective." Liaise with the CSA to consider it for inclusion in N288.63) Provide clarification as to the purpose and added benefit of licensed release limits considering EALs and DRLs are currently in place.4) Clarify that release limits should be risk based. Licensees already already have performance-based limits that provide an indication of a potential loss of control event – action levels. It is unclear why another limit that does the same thing is needed.

32	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5.1	**Industry Issue: Major** Industry has questions with the note on page 27, which says, "The applicant or licensee may use the methodology described in CSA N288.8, Establishing and implementing action levels for releases to the environment from nuclear facilities [5], for a retrospective approach, using a percentile that represents a clear loss of control (for example, 99.99%)" If licensees are sampling every 8 hours for five years, one sample would represent 0.01% of samples. Most samples are taken weekly, so the example percentage in this note (99.99% cut-off for Loss of control) is slightly incongruent to industry's understood mandate to report once every five years an exceedance of the AL. This approach may also put the release limit below the action level since the action level is 99.7 percentile times a factor. It also implies that the licensed release limit could be exceeded, even if there is no loss of control as it is based on historical data. Is the expectation that these limits will be exceeded? How does the maximum probable emission rate factor into the development of these proposed new limits? **Suggested Change:** CNSC staff is urged to clarify the intent of this note and provide more guidance on an appropriate methodology, with examples, for developing license release limits. Staff should also confirm the release limits as risk-based, which would decrease potential overlap with action levels. **Impact on Industry:** As written, this section could lead to a situation where the release limit is calculated to be below the action level. This would require lowering of the action level which could then lead to unnecessary exceedances and increased administrative burden and regulatory oversight.

33	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5.1	**Industry Issue: Major** As per Theme #1, guidance is lacking in this section on how to develop licensed release limits for hazardous contaminants and physical stressors. If there are limits established by other AHJs, is a licensed release limit required? CSA N288.8 Clause 5.4.2 excludes contaminants from requiring an EAL that are already controlled by other AHJs. If these contaminants still require a Licensed Release Limit, provide guidance on what these values should be, for example flow, hydraulic head, hazardous contaminants, noise, wildlife-vehicle collisions. It seems that a license release limit would be required for all Constituents of Potential Concern as defined in the ERA if hazardous substances are above guidelines and objectives, which are often out-of-date. A license limit should be based on current science and not an out-of-date federal or provincial guideline. **Suggested Change:** Provide guidance for developing licensed release limits for hazardous contaminants and physical stressors that (i) are already governed by other AHJs or (ii) do not have standard guidelines or objectives available. Add to the subsection "Identify each contaminant and physical stressor that requires a license release limit" that all available scientific information should be used in the decision to determine if a licensed release limit is required, if the guideline is determined to be not based on current science. **Impact on Industry:** As written, this section could lead to inconsistent application across the industry and additional administrative burden for licensees with no corresponding safety benefit. It could also create regulatory uncertainty if licensees must comply with guidelines and standards that are based on current science.

34	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5.1	**Industry Issue: Major** This section is also unclear in the following ways: 1) The statement under Guidance on page 26 which reads, “The list of points of release should be in alignment with those established in the effluent and/or emissions monitoring program” contradicts an earlier statement in section 5.1 that licence release limits should be for controlled release points. Stormwater releases or effluents that are mainly groundwater contamination are not controlled and these should be excluded from having release limits, as was done for action levels. 2) As per Theme #1, the statement on page 26 that says, “All contaminants and physical stressors should be identified that are: …identified as potentially exceeding federal, provincial, or territorial environmental quality guidelines” could be controversial because there are many limits in many jurisdictions. 3) Also on page 26, further clarification is needed for how to combine all nuclear substances at a licensed facility when determining if the maximum predicted total effective annual dose to the public does not exceed 0.01 mSv/year. 4) Regarding the 3rd bullet on page 26: If the intention is use these requirements to establish release limits, then “and adopt” should be deleted. It is unclear what two options the "or" between bullets 3 and 4 applies to.5) Regarding the 4th bullet on page 26, proposed licensed release limits may not always be applicable.6) The bullet on page 27 which reads, “otherwise, the licensed release limits should be established by using historical performance data” is unclear. The methodology for setting of release limits is too vague. Are the Licensed Release Limits applicable to each effluent stream like the EAL (CSA N288.8) or by facility?7) On page 28, the criteria for “unreasonable risk” are unclear. **Suggested Change:** For clarity, staff is urged to: 1) Amend the statement under Guidance on page 26 to read, “The list of points of release should be in alignment with those controlled release points established in the effluent and/or emissions monitoring program.” 2) Clarify how a facility ensures is selecting the appropriate guidelines? What will be in place to ensure facilities in the same regions follow the same guidelines? 3) Clarify how to combine all nuclear substances for determining if licensed released limits are required or not. Is this for the total site, or for each facility on the site? 4) Amend the 3rd bullet on page 26 to read, identify any other governmental requirements (for example, existing federal, provincial, territorial, and municipal requirements) or 5) Amend the 4th bullet on page 26 to read, “establish the proposed licensed release limit, if applicable, based on the maximum predicted design release concentration or quantity”6) Provide clarity on whether the licensed release limits are specific to effluent stream or facility. 7) Define what is considered “unreasonable risk.” Provide a common methodology and liaise with the CSA to consider for inclusion in N288.6. **Impact on Industry:** Unclear expectations could lead to regulatory non-compliances, inconsistent application across the industry and additional administrative burden with no corresponding safety benefit.

35	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5.1	**Industry Issue: Major** This draft indicates a licensed limit may not be required where the applicant/licensee can demonstrate that maximum predicted design release is lower than applicable federal/provincial/territorial or municipal standard, guidelines or objectives.In the April 9, 2021 information session, it was noted that the most sensitive species used to derive that limit may actually be considered, not the benchmark itself. **Suggested Change:**As per Theme #1, update the text to note that, where provincial standards/benchmarks apply, a licence limit is not required if the applicant or licensee can demonstrate that the maximum predicted design release or the derived value is lower applicable the provincial value. If a provincial guideline is in place, that should be the standard to which the effluent limit is compared against. For example, if a provincial value has been updated and is based on the best-available scientific information that should take precedent over outdated research from other jurisdictions. The value itself must be considered, not the most sensitive species used to derive the guideline or benchmark. **Impact on Industry:** It creates regulatory uncertainty when the best available science is not the basis for licensed limits and licensees must comply with inconsistent requirements.
36	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5.1	**Industry Issue: Clarification** As per Theme #3, the methodology for setting of release limits is too vague as described on page 27. If you based the limit on historical releases but the work in the facility changes (i.e. new experiment for example) then the limits would need to change if the work changes. This would be very difficult if the release limit was in the licence approved by the commission. **Suggested Change:** Clarify the methodology.

37	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco.	Submit comments on section 5.1	**Industry Issue: Major** As per Theme #2, the section on page 27 under "Establish the licensed released limit to be proposed" indicates: 1) An applicant or licensee may use historical performance data to establish a release limit. The 1st Note indicates that the applicant or licensee may use the methodology in CSA N288.8 for a retrospective approach, using a percentile that represents a clear loss of control. CSA N288.8 uses both a percentile and a factor in deriving the action level. The note also uses an example of a percentile that represents a clear loss of control (99.9%). Dependent on the analysis, hitting this value does not represent a clear loss of control given the use of factors in CSA N288.8. The Note also suggests that nuclear operations would be held to a more stringent standard than non-nuclear facilities. 2) Regarding the 2nd Note, applying factors of 1.5 and 2 to the maximum monthly mean of federal and provincial limits to achieve grab sample and composite sample maximums may not be achievable using the monthly maximum predicted design release concentration, particularly a batch treat and release process, whereby the concentrations are approved prior to release, and have action levels in place that are a factor (such as five, but factors can vary) above the upper range of normal (e.g., 95th to 99.7th percentile). Setting the maximum monthly mean concentration as the licensed release limit, based on the maximum predicted design release concentration, could result in a license release limit that is below the action level. Is "maximum monthly mean concentration" referring to the predicted maximum mean concentration? Furthermore, the operational flexibility calculation only applies to waterborne releases. There is no guidance on how the operational flexibility would be calculated for atmospheric releases. **Suggested Change:** For future drafts, CNSC staff is urged to:1) Delete the note. Otherwise, revise it to read, "for a retrospective approach, using a percentile and a factor that represents a clear loss of control …" As shown in Figure 3, the licensed limit must be above the approved action levels, which are derived using a combination of historical performance data and a corresponding factor. The use of the factor is necessary to have a limit above the established action level and to address situations where strong performance has resulted in low concentrations of parameters in treated effluent.2) Further detail and example calculations should be added and referenced to the second bullet and its Note. A release limit should be a factor above the maximum predicted design release concentration that is also above the action level, particularly in the scenario that licensed release limits are based on historical performance data. Ideally, the maximum monthly mean concentration should be at or above the action level and the maximum grab and composite samples should be above the maximum monthly mean concentration by a factor of 1.5 and 2 to align with the hierarch established for existing license limits from provincial and federal authorities. **Impact on Industry:** Inconsistency with CSA N288.8 and regulatory uncertainty. REGDOCs should not create regulatory requirements that exceed legal requirements

38	CNA	`	**Industry Issue: Major** The list used to determine each contaminant and physical stressor requiring a licensed release limit is far-reaching and may not indicate a loss of control of part of the environmental protection program or control measures. Examples:• Absence of an “or” in the list, it incorrectly assumes that all parameters with guidelines are required to be monitored. • The April 9th information session discussion confirmed that if release concentrations (based on normal operation predictions) were lower than guidelines then no licensed limits would be required. The ERA is the most efficient way to determine the contaminants and physical stressor that require a licensed release limit because it considers applicable guidelines and is only based on required monitoring data. Therefore, the first and second point of the list to the right are already captured by the third and eliminate the potential for unnecessarily expanding the scope for licensed release limits. **Suggested Change:** Delete first two bullets in the Identify each contaminant and physical stressor that requires a licensed release limit section. **Impact On Industry:** Regulatory burden is created to impose release limits in the absence of a loss of control.

39	OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section 5.1	**Level: MAJOR** **Industry Concern:** The bolded font in this section indicates that the proponent/licensee must demonstrate that the proposed licensed release limits respect the regulatory public dose limit and do not pose an unreasonable risk to human health or the environment. When completing risk assessments, mean annual values are used to assess potential risk to human health or the environment. Given existing controls, these values are well below established action levels and regulatory limits. Other factors will also contribute to the risk evaluation including treated effluent flow volume, historical effluent releases, assumptions surrounding receptor characteristics, etc. In some cases, potential risks may exist in the absence of any treated effluent release. Further, in many cases, ERAs are completed using probabilistic assessments that use mean values as opposed to single data points. Further, licensed limits are values that a licensee will not operate at continuously; therefore, demonstrating a long-term risk at these values is not reflective of an actual operating scenario. Other processes, such as action levels, would prevent a licensee from continuously releasing treated effluent at the licensed limit. Risk assessments that assume mean values at the licensed limit would imply that many values are above the licensed limit, which could not happen. Unreasonable risks identified under these assumptions, would not represent valid operational scenarios and therefore should not form the basis of a licensed limit. **Suggested Change:** The approach must be modified to reflect that the continuous release at the licensed limit is not a realistic or authorized operating scenario. The determination of an unreasonable risk should not be based on this assumption, as existing controls and regulatory limits would prevent this from occurring. Further clarification is required to note that potential risks are not solely connected to the licensed limit, and that many other factors can influence the assessment. **Impact on Industry:** Licensees cannot comply with unrealistic risks used in assessments that do not represent valid scenarios.

40	OPG	Submit comments on section 5.1	**Industry Concern:** Considering the 5.1 section on "Identify other requirements of other jurisdictions", the licensee is expected to demonstrate, where existing provincial requirements do not adequately protect the environment, alternative limits, demonstrated through the ERA, to be protective. The coordination of regulator interests here will be problematic when applying for a permit, and the CNSC may be over-reaching if this creates regulatory conflicts. If wishing to pursue more stringent limits based on an alternative review process, it would be more beneficial if the CNSC coordinates with the provincial regulator to align themselves as a reviewer of the permit application. Note: Per 2.2.2, "The CNSC will work with other jurisdictions to ensure that, to the extent possible, authorizations are acceptable to all applicable jurisdictions." **Suggested Change:** Applicants and licensees should be able to reference a pre-screened list of alternative guidelines and limits, prior to ERA review. This may include lists similar to the MECP Air Contaminants Benchmark list, but which would define alternative limits for contentious hazardous substances considered sufficiently protective to federal regulators. **Impact on Industry:** Risk and uncertainty are created in the regulatory process, if existing provincial, protective limits may be invalidated by an alternative risk assessment process. Contradictions, outside the control of the licensee, need to be resolved prior to starting reviews, as much as possible.

41	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section 5.2	**Industry Issue: Major** The bolded font in this section indicates that the proponent/licensee must demonstrate that the proposed licensed release limits respect the regulatory public dose limit and do not pose an unreasonable risk to human health or the environment. When completing risk assessments, mean annual values are used to assess potential risk to human health or the environment. Given existing controls, these values are well below established action levels and regulatory limits. Other factors will also contribute to the risk evaluation including treated effluent flow volume, historical effluent releases, assumptions surrounding receptor characteristics, etc. In some cases, potential risks may exist in the absence of any treated effluent release. Further, in many cases, ERAs are completed using probabilistic assessments that use mean values as opposed to single data points. Further, licensed limits are values that a licensee will not operate at continuously; therefore, demonstrating a long-term risk at these values is not reflective of an actual operating scenario. Other processes, such as action levels, would prevent a licensee from continuously releasing treated effluent at the licensed limit. Risk assessments that assume mean values at the licensed limit would imply that many values are above the licensed limit, which could not happen. Unreasonable risks identified under these assumptions, would not represent valid operational scenarios and therefore should not form the basis of a licensed limit. **Suggested Change:** The approach must be modified to reflect that the continuous release at the licensed limit is not a realistic or authorized operating scenario. The determination of an unreasonable risk should not be based on this assumption, as existing controls and regulatory limits would prevent this from occurring. Further clarification is required to note that potential risks are not solely connected to the licensed limit, and that many other factors can influence the assessment. **Impact on Industry:** Licensees cannot comply with unrealistic risks used in assessments that do not represent valid scenarios.
42	CNA, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section 6.1.1	**Industry Issue: Major** Guidance is required on how to “establish the need” for action levels for physical stressors and hazardous contaminants. If licensees are meeting the requirements of other AHJ, then action levels should not be required. **Suggested Change:** Provide guidance as to how to establish the need for action levels for physical stressors and hazardous substances. **Impact on Industry:** Unclear expectations could lead to regulatory non-compliances, inconsistent application across the industry and additional administrative burden with no corresponding safety benefit.

43	CAN, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section 6.1.2	**Industry Issue: Clarification** Clarity is sought for the requirement to "establish and implement action levels on other environmental controls that are necessary to ensure the effectiveness of the environmental protection program and control measures" **Suggested Change:** Clarify if licensees have gaps needing to be addressed/ scope of work to implement.
44	CNA OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section 7	**Industry Issue: Clarification** Clarity is sought on the following items on the commissioning of a treatment system: 1) Does this section apply to conventional or non-licenced facilities on a licenced site such a new sewage treatment facility. 2) There is an incomplete reference in third last paragraph. 3) The definition of major modification within the glossary doesn't provide sufficient clarity. **Suggested Change:** For future drafts, CNSC staff is asked to: 1) Clarify the intent of the section for conventional or non-licensed facilities. 2) Amend the 3rd last paragraph to read, "… Appendix B section 4.2.1." 3) Expand upon the definition of "major modification."
45	CNA OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on appendix A	**Industry Issue: Clarification** Industry reviewers found: 1) Bracketing is incorrect and the first sentence indicates this appendix is not relevant to class 1 uranium mines and mills. Even with the correct brackets that align with the text in Section 2, it still says licensees need to meet conditions in this appendix. It is unclear if this appendix is applicable to Class 1 facilities or not. 2) Inconsistent terminology for clearance levels leads to confusion and uncertainty. **Suggested Change:** For future drafts, CNSC staff is urged to: 1) Delete bracket: As described in section 2 licensees (other than Class I facilities and uranium mines and mills) whose routine operational releases of radionuclides meet …" 2) Add a hierarchy or simple figure outlining the various clearance level terms (CL; Standard Conditional CL, Unconditional CL, Conditional CL, Generic Conditional CL, Practice-specific CL) and how they relate to each other.

46	Gilles Provost, Ralliement contre la pollution radioactive	Commentaires sur l'annexe A.1	1) Je trouve exagérément permissive la dose de minimis de l'AIEA, sur laquelle se fonde votre calcul des rejets radioactifs admissibles sans permis. Cette dose de 0,01 milliSievert/an n'est certainement pas négligeable puisqu'elle est à peine 100 fois plus petite que la dose maximale de 1milliSievert pour le public, toutes sources confondues. Et il faut tenir compte du fait que les citoyens sont exposés simultanément à bien d'autres sources de radiation ionisantes. 2) Le tableau A- 1 qui énumère les quantités de radioisotopes qui peuvent être rejetées dans l'environnement sans le moindre permis sont aussi déraisonnablement élevées, en partie parce qu'elles se fondent sur la dose de minimis de l'AIEA. 3) Je trouve particulièrement permissives les rejets maximaux autorisés pour le tritium, plus élevés que ceux de la centaine d'autres radioisotopes présents dans le même tableau. Pourtant, le tritium est un des isotopes les plus mobiles et les plus facilement incorporés dans les organismes vivants. Son rayonnement en outre particulièrement dommageable pour les cellules dans lesquelles il s'est intégré et dans lesquelles il peut persister plus d'un an. 4) Ce REGDOC autoriserait, sans le moindre permis, de déverser chaque année dans un égout municipal assez de tritium pour générer mille milliards de désintégrations (1 000 000 000 000 becquerels). Cela permet, sans permis, un déversement continu de 32 000 becquerels à la seconde alors que l'eau cesse d'être potable à 7 000 becquerels par litre. Aucun autre radioisotope du tableau A-1 ne bénéficie d'une limite aussi laxiste pour les rejets à l'égout! 5) De même, le règlement autoriserait de placer sans permis dans n'importe quelle décharge municipale jusqu'à trois tonnes par année de déchets solide contenant un million de becquerels de tritium par gramme. Là encore, on atteint un rejet total annuel de 3 mille milliards de becquerels (3 000 000 000 000 Bq). À ce rythme, on aura dépassé en 30 ans la quantité totale de tritium que contiendront les centaines de milliers de tonnes de déchets radioactifs en vrac que devrait recevoir en 50 ans le monticule de l'Installation de gestion des déchets près de la surface que le Gouvernement veut construire à Chalk River ! Aucun autre radioisotope du tableau A-1 ne bénéficie d'une limite aussi laxiste pour les rejets dans les décharges publiques!
47	OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on appendix B	The CNSC received this comment from Ontario Power Generation (OPG), Hydro-Quebec, Bruce Power, Canadian Nuclear Laboratories (CNL), NB Power and Cameco. **Industry Concern: Clarification** On page 45, it is not clear how the environmental release targets that may be based on technology would be any different than the release limits themselves and am unsure the purpose for them. **Suggested Change:** Clarify

48	CAN, CNA OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section B.1	**Industry Issue: Clarification** The 2nd bullet is unclear regarding expectations for setting environmental release targets: it excludes the consideration of BATEA when the CNSC could specify release targets. Establishing environmental release targets is part of the BATEA assessment, but it is not mentioned in Appendix B. **Suggested Change:** Amend the 2nd bullet to read, “a technology-based approach ”
49	CAN, OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section B.4	**Industry Issue: Clarification** The list in Appendix B.4 does not align with the referenced list in Section 4.3 (page 22). **Suggested Change:** Delete third bullet
50	CNA OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section B.5.2	**Industry Issue: Major** The releases to sewer Note states that the treatment provided by the municipal wastewater treatment plant should be not considered. This is not a realistic scenario and is very conservative, particularly if the release to sewer, other inputs, and the output from the municipal discharge is known. The environmental release targets can consider mixing zone dilution factors; similarly, the know information related to the collective discharges to the sewer system and municipal treatment prior to release to the environment should be considered. **Suggested Change:** The text should be revised to include information that is known about the releases to sewer and municipal treatment to ensure that environmental release targets are realistic. **Impact on Industry:** Regulatory burden is created when unrealistic scenarios are used to calculate releases to the environment.
51	CNA OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on section B.5.3	**Industry Issue: Major** Technology-based licensed release limits established by the CNSC are not needed when licence release limits are based on an ERA and could be inconsistent with site specific risk. **Suggested Change:** Revise second bullet to “When necessary, the CNSC may develop technology-based licensed release limits for substances of common concern within a sector. **Impact On Industry**: Creates regulatory uncertainty.

52	CNA OPG, Hydro-Quebec, Bruce Power, CNL, NB Power and Cameco	Submit comments on Glossary	**Industry Concern: Major** "maximum predicted design release" is "[t]he residual release characteristics (that is, quantities, concentrations and volumes) that are anticipated, following treatment and mitigation through the application of BATEA, to the maximum expected pollutant source characteristics." **Suggested Change:** Revise definition to read, "[t]he maximum release characteristics (that is, quantities, concentrations and volumes) that are anticipated, following treatment and mitigation through the application of BATEA, **Impact on Industry:** Creates regulatory uncertainty when compliance with two documents is based on inconsistent concepts