

September 28, 2018

NK21-CORR-00531-14689  
NK29-CORR-00531-15368  
NK37-CORR-00531-03059

Mr. B. Torrie  
Director General, Regulatory Policy Directorate  
Canadian Nuclear Safety Commission  
P.O. Box 1046  
280 Slater Street  
Ottawa, Ontario  
K1P 5S9

Dear Mr. Torrie:

Bruce Power comments on draft REGDOC-2.10.1, Emergency Management and Fire Protection, Volume II: Framework for Recovery After a Nuclear Emergency

The purpose of this letter is to provide Bruce Power's comments on this draft Regulatory Document (Reference 1), which offers guidance that decision makers may need to consider prior to, or following, the response to a nuclear emergency in Canada.

Following a collective review with our industry colleagues, we have generated a series of suggestions and requests for clarification in Attachment A for the CNSC to consider for future drafts.

If you require further information or have any questions regarding this submission, please contact Steve Cannon, Senior Strategist, Regulatory Affairs, at (519)-361-6559, or [steve.cannon@brucepower.com](mailto:steve.cannon@brucepower.com).

Yours truly,



Maury Burton,  
Senior Director, Regulatory Affairs  
Bruce Power

cc: CNSC Bruce Site Office (Letter only)  
L. Forrest, CNSC Ottawa

Attach:

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Reference:

1. CNSC draft Emergency Management and Fire Protection, Volume II: Framework for Recovery After a Nuclear Emergency, July 2018

## **Attachment A**

**Bruce Power comments on draft REGDOC-2.10.1, Emergency Management and Fire Protection, Volume II: Framework for Recovery After a Nuclear Emergency**

**Attachment A: Bruce Power comments on draft REGDOC-2.10.1, Emergency Management and Fire Protection, Volume II –  
Framework for Recovery in the Event of a Nuclear Emergency**

#	Document section/ excerpt of section	Industry issue	Suggested change(if applicable )	Major Comment/request for clarification <sup>1</sup>	Impact on industry if major comment
1.	General	Operating experience from the Synergy Challenge emergency exercise -- which will test the capability of New Brunswick Power and all municipal, provincial and federal agencies to respond to a simulated nuclear accident -- is not included in the current version of this draft REGDOC.	Industry urges the CNSC to update this draft with any operating experience that emerges from the Oct. 3-4, 2018 Synergy Challenge exercise and reissue the REGDOC for public comment. NB Power anticipates a full after-action report will be available by the end of December 2018.	Major	With lessons gleaned from the Synergy Challenge, licensees will have an improved REGDOC which includes the most current experiences from a full-scale exercise with all levels of government and external response agencies.
2.	General	It appears that input from other agencies (ie. federal, provincial and municipal) has not been incorporated in this draft REGDOC. This has led to several noted discrepancies between requirements stipulated in this REGDOC and other agencies' requirements.	Solicit input from federal, provincial and municipal agencies on this draft REGDOC. This should prevent conflict in requirements stated in this REGDOC and requirements from other agencies.	Major	Requirements provided in this REGDOC may be in conflict with requirements from other agencies, including municipal, provincial and federal responders. Please see comments #8, 9 and 10 as examples of misalignment of requirements.
3.	1.1	The phrase "determined by the authorized jurisdiction" is used in the first paragraph of this section and elsewhere in the document.	For clarity, industry suggests using the phrase "authority having jurisdiction (AHJ)" to align with existing terminology in CSA Group standard N1600: <i>General requirements for nuclear emergency management programs</i> .	Clarification	
4.	1.2	Industry appreciates the CNSC's efforts to disposition earlier feedback provided on <i>D/S-17-01</i> , which formed the basis of this draft REGDOC. Many of industry's suggestions for clarity and improvement have been incorporated in this document, which makes it a more useful guide. However, the stated purpose of this REGDOC is to guide authorities	Given that provincial and municipal authorities play a significant role in offsite recovery and CNSC Regulatory Documents do not apply to them, a CSA standard or Health Canada guidance document would seem a more appropriate vehicle than a REGDOC to convey the guidance in this document. Details around the roles and responsibilities of the licensee and	Clarification	

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		responsible for “offsite recovery following a nuclear emergency.” As such, it focuses on activities in the public domain far more than at licenced facilities, for which REGDOCs apply.	various government support agencies could be defined in a CSA standard, which applies more directly to all intended audiences.		
5.	1.3	The CNSC has an opportunity in the scope of this document to more clearly and concisely detail the high-level roles and responsibilities of federal, provincial, municipal agencies versus licensees. It could also clearly say the regulatory framework does not impede business decisions a utility might make within its own recovery operations for events that do not impose public safety risks.	Through bullet points, clearly and concisely state the role and responsibilities for each level of government and licensees. Insert a statement that makes it clear the impacted facility can make business decisions within its own recovery operations for events that do not impact public safety.	<b>Major</b>	In the wake of an unlikely event like the one contemplated in this document, the public will understandably make incorrect assumptions about the role of a licensed facility in off-site recovery efforts and what actions it can, or cannot take. Given key words in this document and its title, many members of the public, and the media, will be directed by Internet search engines to this REGDOC as a source for those roles and responsibilities. The more clearly those are stated in the initial pages of this REGDOC, the less confusion there will be.
6.	2.2	Industry finds the second sentence of the second note on Page 6 unclear. It currently reads, “Importantly, the nuclear emergency would not be terminated until the elements required for recovery have been arranged for.”	As currently written, this statement seems vague and open to interpretation. What elements? Staffing? Budget? Equipment? Depending on the scale of recovery (which may not be fully known at the time), what is required may change and grow over time.	<i>Clarification</i>	
7.	2.2	Industry finds the first bullet point in this section to be confusing and contradicts the point that follows it regarding exposure being as low as reasonably achievable (ALARA). The first bullet point currently reads, “Justification requires that the net benefit of the actions taken to reduce radiation exposure be positive, beyond simply the impact on the radiation exposure to individuals.”	Industry suggests this sentence be rewritten to ensure its intent is easily understood and not contradictory to subsequent points.	<i>Clarification</i>	

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8.	2.2	<p>There is misalignment in terms of dose limit treatment for emergency workers and helpers between this draft REGDOC and the Provincial Nuclear Emergency Response Plan (PNERP). For instance:</p> <ol style="list-style-type: none"> <li>1. PNERP does not use the Exposure Situations approach.</li> <li>2. REGDOC 2.10.1 Vol II (pg. 6) recommends the dose limit during the recovery phase can be up to 20 mSv (existing exposure situations) while the default dose limit specified in the PNERP is 50mSv regardless of the exposure situation a person might be in.</li> </ol> <p>The misalignment causes confusion for licensees who are part of the response.</p>	<p>Industry suggests the CNSC follow up with the PNERP committee to ensure alignment for future drafts.</p>	<p align="center"><b>Major</b></p>	<p>Misalignment of dose limit treatment will lead to confusion during exercises and post-event management.</p>
9.	2.2	<p>It is confusing to have multiple definitions for Planned Exposure Situations, Emergency Exposure Situations and Existing exposure situations as defined by both the ICRP and Health Canada under the <i>Generic Criteria and Operational Intervention Levels for Nuclear Emergency Planning and Response</i>.</p>	<p>Industry encourages the CNSC to either create a table for multiple definitions or utilize one approach.</p>	<p align="center"><b>Minor</b></p>	
10.	2.2 & 4.1	<p>There is misalignment between the Radiation Protection Regulations (RPR) and this draft REGDOC regarding emergency dose limits.</p>	<p>Align the limits in this document with the RPRs to specify a limit of up to 500 mSv.</p>	<p align="center"><b>Major</b></p>	<p>There will be potential confusion during an emergency if requirements are not consistent.</p>

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	<p>Figure 1 on Page 6 and Table 1 on Page 11 of this draft REGDOC indicate the dose limit for Emergency Exposure Situations during the response phase/transition phase can be up to 100 mSv (20-100 mSv). However, the RPRs allow a person involved in the control of a nuclear emergency to receive a dose up to 500 mSv (if persons performing task 2 and/or 3). Note: this person can be a facility staff, emergency worker or helper.</p>			
<p><b>11.</b></p>	<p><b>3.1.1</b> Industry wonders if the word “discrete” is the proper descriptor in the sentence, “When requested by the designated primary department, supporting departments are responsible for executing their discrete responsibilities.”</p>	<p>For clarity, industry suggests replacing the word “discrete” with another descriptor like “supporting” or “respective.”</p>	<p align="center"><i>Clarification</i></p>	
<p><b>12.</b></p>	<p><b>4.2.2</b> Stating that members of the public should be given tools and training for dose and contamination monitors to promote community empowerment could be misinterpreted by some readers as a proactive measure rather than a reactive option during the recovery phase. As currently written, some residents within protective action zones might mistakenly believe they need to have these tools and training to help them prepare in the unlikely event of a nuclear emergency.</p>	<p>While this passage is under the Transition to Recovery portion of the REGDOC, industry believes additional context should be included in the introductory paragraph of section 4.2.2 to make it abundantly clear that tools and training for contamination monitors would only be an option in the recovery phase.</p>	<p align="center"><b>Major</b> <i>Clarification</i></p>	<p>Without clarity, some members of the public may seek meters and training proactively.</p>
<p><b>13.</b></p>	<p><b>5.1</b> The reference source for the citation at the end of the 3<sup>rd</sup> paragraph is not listed.</p>	<p>Cite the proper source.</p>	<p align="center"><i>Clarification</i></p>	

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14.	5.1.2	Industry finds the last paragraph on Page 17 unclear. It currently reads, “A challenge of self-help actions to balance the burden placed on the individuals (i.e., constant monitoring of foods eaten and places visited) against the benefits of empowerment to improve people’s own exposure situations.”	Is this a complete sentence?	<i>Clarification</i>	
15.	5.2	Industry finds the bulleted statements near the top of Page 19 to be unbalanced. They currently read, “The following are some specific objectives of monitoring the environment during recovery: <ul style="list-style-type: none"> <li>• To identify areas in which detailed radiation monitoring is needed</li> <li>• To identify areas in which remedial actions are justified in radiological terms</li> <li>• To provide information for estimating actual or prospective doses to members of the public</li> <li>• To detect changes and evaluate long-term trends in environmental radiation levels as a result of the emergency and recovery efforts</li> <li>• To disseminate information to the public”</li> </ul>	Industry suggests adding additional information to balance the statements. For example, “monitoring is needed or not required” or “actions are justified or no longer required.” Knowing and identifying which areas are safe to access is as important as knowing which areas require decontamination.	<i>Clarification</i>	
16.	5.2	The document says, “Additional criteria should be established to manage long-term contamination of the food supply from long-lived radionuclides [9] and for the consumption of country foods that are not part of the managed commercial	Add some additional guidance on safe consumption levels for food and drinking water being sourced from the area affected by the nuclear accident. Health Canada may have some information on this already. However, if it is not currently available, it needs to	<b>Major</b>	Without accurate and contextual information, those who work in the agricultural or fishery industries within an affected area will be negatively impacted since they may not be able to sell their products, even though they are safe for consumption.

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	<p>food supply chains.” It would be helpful if additional guidance on safe consumption levels of locally-sourced food and drinking water was included in this document (either by reference or appendices). It is important for the public to understand that food being grown in the impacted area is safe for consumption. Otherwise, local agriculture and aquaculture/fisheries could be shunned. OPEX from Fukushima shows this to be the case due to the fact that safe levels of radiation in food from the affected area were not in place, or publicized, before the event.</p>	<p>be developed, publicized and included in a future edition of this document.</p>		
<p><b>17.</b></p>	<p><b>5.4</b> Industry seeks additional clarification regarding the health monitoring program referenced in this section. Who is responsible for implementing and maintaining this program? Does PNERP address this issue? In Canada, no such program exists. Individuals seek medical attention or obtain medical follow ups from his/her family physicians. This program may be developed and activated during an emergency, but there is no delineation of which government/agency/organization will be responsible for it.</p>	<p>Industry suggests the CNSC should be more specific on this guidance, i.e. which government/agency/organization will be implementing this program and how it will be funded.</p>	<p align="center"><i>Clarification</i></p>	