

**Bruce Power Comments on The CNSC's Proposed
Packaging and Transport of Nuclear Substances Regulations, 2014 Published in Canada Gazette, Part 1**

#	Document Section/ Excerpt	Industry Issue	Suggested Change (if applicable)	Major Comment/ Request for Clarification	Impact on Industry, if major comment
1.	General	Many of the definitions and requirements are subjective and are open to interpretation [see comments on dose rates (comment 6) and negligible liquid content (Comment 14) as examples]	Provide precise definitions and requirements such that the Regulations are not subject to interpretation.	MAJOR	Demonstration and oversight of compliance will be inconsistent between licensees if the PTNSR are subject to interpretation.
2.	General	The document uses must instead of shall as used in other regulations	Change document to be consistent with other regulations	Request for Clarification	
3.	1.(1), definition of "freight container"	The definition for "freight container" in the IAEA regulations is largely similar to the definition in the IMDG regulations. Anyone using the PTNS Regulations will have access to the IAEA regulations, but may not have the IMDG regulations unless they make marine shipments.	Refer to the IAEA definition of "freight container" instead of the IMDG definition.	Request for Clarification	
4.	1.(1), definition of "over-pack"	The definition of "overpack" in the IAEA regulations differs from the definition in the newly revised Transportation of Dangerous Goods (TDG) Regulations. The IAEA regulation applies to any enclosure that contains one or more packages, whereas TDG regulation only applies to enclosures that consolidate small means of containment and does not apply to large means of containment. This could lead to situations where the marking and labelling requirements for overpacks differ between PTNSR/IAEA and TDG	Refer to the TDG definition of "overpack" instead of the IAEA definition.	MAJOR	Ambiguity and inconsistency in what is or is not an "overpack" in Canada can lead to inconsistencies in marking and labelling. This can make it very difficult for licensees to show compliance with both the PTNSR and TDG Regulations.

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5.	2.(2)(l)	The term “low toxicity alpha emitters” is used in Sections 2(2) (l) and 35(1) (f) (i) but it is not defined in the Regulations.	Add “low toxicity alpha emitters” to the Definitions (Section 1. (1)) and indicate that it has the same meaning as in IAEA Regulations.	Request for Clarification	
6.	3.	Dose rates specified in this section do not identify a distance from the material where the measurements must be taken. If a trailer of scrap metal sets off an alarm, are the dose rates measured at 1 meter from the trailer, on contact with the trailer, on contact with the material, on contact with the radioactive component of the load only, etc.?	Clarify the dose rate measurement requirements.	MAJOR	This will make it difficult for licensees to show compliance as the requirement is subjective.

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7.	3. (1) to (5)	<p>The terminology “licensable quantity” is confusing in the context of the PTNSRs. ”</p> <p>In the context of the PTNSRs it is not clear why one has to characterize material to determine if it is subject to the Nuclear Substances and Radiation Devices Regulations</p> <p>It appears that this section was added to put into regulation in relation to the requirements for material that alarms a portal/vehicle monitor. For Class I facilities, by procedure, this material would be characterized etc. prior to release (as outlined in Section) to ensure it is not licensable per NSRD (i.e. above Exemption Quantities) and that the requirements of NSRD nor PTNSR are required to be met. Outside the Class I Facility world, scrapyards/landfill sites that have portals/vehicle monitors are not licensed and operators often don't know what to do with the material when the alarm goes off. CNSC released two INFO docs on this in 2011 (INFO-813 and INFO-814, links below) and the information in these is now in Section 3.</p>	<p>Provide clarification to this section of the PTNSRs to ensure that it is readily understandable to all users.</p> <p>As currently written, it is confusing to Class I facility licensees as current processes would ensure that these requirements would be done by procedure. Therefore, this section seems to have no real purpose to this sub-set of users (Class I Facility licensees), when in reality it could be an important set of requirements for other users or licensees that do not have requirements from their current licence to have processes that deal with “licensable quantities”.</p>	Request for Clarification	This section can be misinterpreted if it is not better defined.
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8.	Background item# 5 and last para of Description/Improvement of the PTNS/Transport Documents Section 29 PTNS, 2014	<p>It sounds like in the preamble (Background and Description) of the PTNS, 2014 that the Canadian consignor will not need to include the Consignors Declaration on the shipping document. But section 29 instructs the user to follow the particulars of consignment under the IAEA regulation which can include the declaration.</p> <p>PTNS, 2014 Section 25(2) (a) indicates to follow Provision of Information for Carriers which include IAEA paragraph 555 which refers to the paragraph 547 the consignors declaration.</p> <p>Furthermore the Transportation of Dangerous Goods Regulations were recently amended. One of the new requirements under the TDG is a consignor's declaration as described in Section 3.6.1 of the TDG.</p> <p>IAEA paragraph 547 also specifies the wording listed in that paragraph is required: "The consignor shall include in the transport documents a certification or declaration in the following terms..." The wording in IAEA paragraph 547 does not match the wording in TDG 3.6.1(1)(a), and the IAEA regulations are not listed as a valid certification in 3.6.1(1)(b)-(e), although the wording in IAEA Para 547 may match the wording in one of the acceptable alternatives listed in TDG. Therefore, if a consignor's declaration is required, how to achieve compliance with both the PTNSR and the TDG Regulations is unclear.</p>	Clearly define if/when a consignors' declaration is required to ensure compliance is possible with both PTNSR and the TDG Regulations.	MAJOR	This will make it difficult for licensees to show compliance as there are inconsistencies between the IAEA Regulations/PTNSR and the TDG Regulations.
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9.	5.(2)(a)	Does “water” include “heavy water”? The current and proposed regulations are ambiguous on this point.	Add a definition for “water” or revise 5. (2)(a) to state “...less than 225 L of water or heavy water...”	Request for Clarification	
10.	5.(2)(b)	Does “...and 10-5 A2/g for liquids” include tritiated water and tritiated heavy water? It is ambiguous whether a volume of 225 L or greater of tritiated water can be classified under 5.2(b) as LSA-II, or whether 5.2(a) means that only volumes of less than 225 L of tritiated water may be classified as LSA-II regardless of the tritium concentration.	Provide clarification of intent.	Request for Clarification	This section can be misinterpreted if it is not better defined.
11.	6.1	The section uses double negatives	Revise to list any exemptions and avoid double negatives	MAJOR	Double negatives can lead to inadvertent non compliance with the regulations
12.	6.(1)(c)	Is a licence required to transport large objects that meet the IAEA requirements for transport as unpackaged SCO-I?	Revise 6. (1)(c) as “the nuclear substance is contained in a large object unless it is transported as unpackaged SCO-I in accordance with the IAEA Regulations.”	MAJOR	Without this change, any large object that is contaminated above the exempt limits but falls within the classification of SCO-I would require a licence. Material that meets the requirements to transport as SCO-I unpackaged according to the IAEA regulations should be exempt from licensing requirements regardless of whether it could or could not fit inside of a package.
13.	6.(2)	Under the current regulations, a person may “service” packages, special form radioactive material, or low dispersible radioactive material (6 (2)) without a licence. The suggested revision does not specify that a package may be serviced. Does this preclude performing maintenance on a loaded packaging?	Revise 6 (2) to include servicing of packages.	Request for Clarification	

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14.	6.(3)	Revise 6 (3) for clarity	Should read "A person may package or unpackage a nuclear substance..."	MAJOR	As written, once the nuclear substance is packaged, the resulting package is "prescribed equipment" by definition, and it is unclear whether "use" in 6.(2) would include unpackaging, which would change the prescribed equipment into non-prescribed equipment.
15.	Section 6 LICENCE Item 7.(e)(i)(D)	is in solid form and that any liquid content is negligible, "negligible" is not defined and subject to interpretation.	Please clearly define negligible.	MAJOR	Subjective wording such as "negligible" leads to issues with compliance
16.	7(e)(i) and 7(e)(ii)	The large object requirements are overly restrictive.	The limits should meet the requirements of excepted SCO-I or SCO-II or LSA	MAJOR	This change will allow shipments of large objects in compliance with the REGS
17.	7.(e)(ii)(C)	Does the 4Bq/cm ² include alpha contamination other than low-toxicity alpha contamination?	Provide clarification of intent.	Request for Clarification	This section can be misinterpreted if it is not better defined.
18.	8.(a)	"they must be designed and maintained to...standards other than...provided that an equivalent level of safety is maintained" is awkward wording. The proposed sentence reads as you cannot use the named standard (must use another standard) if you maintain equivalent levels of safety.	Consider revising 8 (a) to "they must maintain an equivalent level of safety if they are designed and maintained to...". This maintains the sentence structure of the remainder of 8 while clarifying the meaning.	Request for Clarification	
19.	10(2)(d)	1. It is not clear where the 2.0 gms per package in item delta come from. 2. The references for the fissile requirements are not stated	Suggest referring to IAEA regulations as references to the numbers specified	Request for Clarification	

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20.	10(3)(a)	The basic radionuclide values for mixtures are not specifically listed, but are calculated based on the direction of the IAEA Regulations. Is this section intended to require the Commission or a designated officer to certify calculations of mixtures (even when each of the present radionuclides have basic radionuclide values listed)?	Specify that calculations for mixtures that contain only radionuclides present in the in the IAEA regulations does not require certification	Request for Clarification	
21.	11.(3)(c)	This is duplicate of section 11.3.a ”	Delete 11.3.c as it covered by 11.3.a	MAJOR	Will lead to inconsistencies in compliance As written, “instructions” could not be modified in minor ways once a design has been certified, whereas “procedures “could be modified.
22.	11(3)(g)	Insert “in Canada”	Revise to “a list of the known users in Canada of the latest certified design”.	MAJOR	A list of all users of a design would be particularly problematic for foreign designs .
23.	14.(2)	The process for recertifying a design to incorporate modifications is described in a negative and reactive manner, and it is not consistent with best industry practices (i.e. applicants seek approval for a design change and a certificate amendment prior to implementation of the modification so the certificate is never void). The text “a new application for certificate must be made” could be interpreted to mean that a completely new certificate must be issued for a modified design when CNSC practice has been to issue a revision of the preceding (pre-modification) certificate.	Consider revising 14.(2) to “Recertification of a previously certified design or calculation is required for modifications that affect the safety of the types of prescribed equipment referred to in section 10; otherwise the modification will void the certificate. The application for recertification shall provide the information necessary to demonstrate that the modified design or calculation meets the requirements of these Regulations.”	MAJOR	The description of the modification approval process should be consistent with industry best practices (i.e. approval before implementation)

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24.	20(2) & 21(2)	Can a special form radioactive material or low dispersible radioactive material be transported as though it were not special form or low dispersible material; <u>e.g.</u> could a consignor treat a sealed source for which no certificate is available as though it were non-special form, classify it according to the A2 value rather than the A1 value, and transport it based on that classification?	Add to section 20(2) and 21(2) “ where a valid certificate cannot be produced, material may be transported if it is classified in accordance with A2 “	Request for Clarification	
25.	22(2)	Can an instrument or article with an approved alternative activity limit be transported using the activity limit specified in the IAEA regulations, e.g., if the activity in the instrument has decayed such that the approved alternative activity limits is not required?	Add to section 22(2) “ where a valid certificate cannot be produced, material may be transported if it is classified in accordance with IAEA values “	Request for Clarification	
26.	27(3)(a)	As written it appears to define supervisors, assistants and trainees as passengers?	Add definition of “passenger” to 1. (1) by referencing the TDG definition of “passenger”.	Request for Clarification	
27.	28(2)(a)(ii)	We have two regulations(TGD AND PTSR) that point to each other without specifying the requirements	Refer to or incorporate the requirements in the IAEA regulations rather than reference to the TGD	MAJOR	Continued confusion on placarding class 7 material which can lead to non-compliance or over placarding.

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28.	35(1)	Unclear expectation from Past PTNSR The definition of a dangerous occurrence is still subjective and may include occurrences that have no health, safety security or environmental impact.	The definition needs to be amended by moving the phrase in 35. 1 (g) “that may reasonably expectedeffected” to before the colon in 35(1)	MAJOR	Increase Administrative impact on reporting when issues do not lead to situations in which the environment, the health and safety of persons or national security is adversely affected; Classifying all occurrences specified as dangerous occurrences will be misleading to the public.
29.	35.(5)	“...any other person who controls any area affected by it” is too broad. The way the document is written it implies that the members of the public may be required to clean up a spill	Change “...any other person...” to “...any licensee...”	MAJOR	As worded, if a shipment of radioactive material went off the road and crashed on the property of a member of the general public, that person would be required to limit the spread of radioactive material, place barriers, etc. A licensee might reasonably be expected to have sufficient expertise to perform the duties specified in 35. (5) on their property, but “any other person” is too broad.
30.	37.(3)-(5)	The information required in the preliminary report will not likely be available to the person required to make the report.	Revise “...on how and where the condition occurred...” to “...on how and where the condition occurred or was discovered...”	MAJOR	37.(3) requires the person receiving or opening the package to determine if there is a problem, 37.(4) requires them to report, but as written, 37.(5) requires them to report information that likely occurred before the material was in their control or possession. The receiver can reliably report where the problem was identified, but may not have any information on how the problem occurred when it was under the control of the Consignor or Carrier.