

Canadian Nuclear | Laboratoires Nucléaires Canadiens

2017 May 08

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COMPLIANCE **Regulatory Affairs** 145-CNNO-17-0014-L

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

Dear Mr. Torrie:

## Canadian Nuclear Laboratories Comments on Draft REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy

Canadian Nuclear Laboratories (CNL) and industry partners have reviewed the draft document "REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy", and produced a set of consolidated comments, captured in attachment A to this letter.

If you should have any questions regarding this submission, please contact me directly.

Yours sincerely,

Solly Karivelil, Manager

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Attachment (1)

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Attachment A Comments on Draft REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy

	#	Document/ Excerpt of Section	Industry Issue	Suggested Change ( <i>if applicable</i> )	Major Comment/ Request for Clarification <sup>1</sup>	<b>Impact on Industry,</b> if major comment
1		Preface	The statement, "Guidance contained in this document exists to inform the applicant, to elaborate further on requirements or to provide direction to licensees and applicants on how to meet requirements. It also provides more information about how CNSC staff evaluates specific problems or data during their review of licence applications. Licensees are expected to review and consider guidance; should they choose not to follow it, they should explain how their chosen alternate approach meets regulatory requirements." gives the impression that the guidance is a requirement.	Delete the last statement to read: "Guidance contained in this document exists to inform the applicant, to elaborate further on requirements or to provide direction to licensees and applicants on how to meet requirements. It also provides more information about how CNSC staff evaluates specific problems or data during their review of licence applications. Licensees are expected to review and consider guidance; should they choose not to follow it, they should explain how their chosen alternate approach meets regulatory requirements."	MAJOR	Some CNSC staff interpret this statement to mean that guidance within the REGDOC is a requirement. This is not true. Guidance is not a requirement. This has major impacts on licensees in the time spent in discussion with CNSC staff as to why guidance is not followed in certain cases.



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2.	1.2	Although uranium ores are not nuclear material, and mines and mills are not within the IAEA definition of "facilities", IAEA considers safeguards to include nuclear material and activities (IAEA Factsheet: IAEA Safeguards Overview), including complementary access. If mines are mills are required to have a safeguard program to address IAEA access under section 4 of the REGDOC then the Scope section should make this clear. If the intention is to exclude mines and mills from the requirements in section 4 then section 4 should be revised to expressly state this.	If the intention is to require a safeguard program to address IAEA access at mines and mills then the second paragraph of 1.2 Scope on page 1 should state "The term safeguards" refers tonuclear material and activities initiated by the IAEA, administered in Canada" The first paragraph on page 2 should be revised to: "The following materials are not subject to inspection, verification and detailed nuclear material accountancy in Canada:  All locations in Canada are subject to IAEA access and this includes uranium and thorium mines and mills." If the intention is to exclude mines and mills from the REGDOC then that should be expressly stated.	Clarification	
3	Section 1.2 (d)	The statement "The following materials are not considered nuclear material, and as such, are not subject to safeguards in Canada: b) nuclear material in transit in Canada are not subject to safeguards" is misleading	Suggest: "materials are not subject to safeguards in Canada and remove the 'are not considered nuclear material' from the paragraph before the bullets.	Clarification	



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4.	1.3.1	Section 30 of the GNSCR identifies situations in which safeguards reports shall be provided by licensees to the Commission. Regulatory document series 3.1, Reporting Requirements,	Make specific reference to other applicable regulatory documents such as REGDOC 3.1.1, Reporting Requirements for Nuclear Power Plants and REGDOC 3.1.2	Clarification	
5.	2.1.1	Using the form available on the CNSC website	Include title – Request for termination.	Clarification	
6.	Section 3.1 (b):	Lack of clarity	Please include the definition of "1 effective kilogram", especially for new licensees as defined in RD-336.	Clarification	
7.	5	The statement ,"As per section 30 of the GNSCR, reports shall be provided by licensees to the Commission in the event of interference with or an interruption to the operation of safeguards equipment, or the alteration, defacement or breakage of a safeguards seal, among other events" does not take into account REGDOC 3.1.1 Reporting requirements for Nuclear Power Plants. All NPPs in Canada are required to report under the requirements of REGDOC 3.1.1 in accordance with their Power Reactor Operating Licence. REGDOC 3.1.1 includes provisions required by section 30 of the GNSCR. This prevents a situation where a different reporting process will need to be developed.	Include a statement that allows NPPs to report under REGDOC 3.1.1.and other applicable regulatory documents such as REGDOC 3.1.2	Clarification	



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8.	5.0 Licensees shall communicate any such events to their own security staff, where such staff exist.	Cases of damaged safeguards seals have not been communicated to Site Security in the past. What is the expected follow-up from Site Security?	Suggest rephrasing to inform Site Security for cases of damage to, theft, or sabotage of safeguards equipment only.	Clarification	
9.	5.0 At licensee sites where safeguards seals and equipment are likely to be present, part of a licensee's safeguards program should include familiarizing all relevant persons with the requirements surrounding IAEA seals and equipment.	Please clarify what is meant by "all relevant persons".	Suggest changing "all relevant persons" to "all site staff".	Clarification	
10.	Section 5 Installation of Safeguards Equipment	Does this indicate that the licensee is required to pay for operation/installation of IAEA equipment?	Suggest clearly defining this. At who's cost? To what end? Do we install whatever they want? This seems very broad. Industry suggests that a workshop on this REGDOC wold include a discussion of this issue	MAJOR	Without clarity for scope and costing arrangements, this could have major economic impact on licensees.



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11.	Section 6 IAEA Access	The required in the following statement is confusing "provide the required access". Is the sentence just supposed to mean that you need to provide access to IAEA inspectors to your site?	Remove "required" or provide clarification of why it was included.	Clarification	
12.	6.1 During an inspection, the licensee shall provide a list of inventory items (LII) covering material subject to inspection, and then facilitate IAEA verification of that inventory.	Not all inspection types require an LII. For instance, an Unannounced Inspection typically has no requirement for an LII.	Suggest rephrasing to state: During an Inspection, when requested by IAEA or CNSC, licensee shall provide an LII covering material subject to the inspection.	Clarification	
13.	6.1 Guidance	The CNSC will seek to participate in all IAEA inspections in Canada, where possible Clarify	Provide clarification or examples.		
14.	Section 6.1	The Guidance mentions a timeline between 24 hours and a week in advance for IAEA inspections. It is unclear if this affects existing inspection protocols.	Suggest adding clear timelines for each type of inspection.	Clarification	
15.	Section 6.1	Why are CAs and DIVs listed but not SNRIs, PIVs or UIs. Is this a change to the safeguards approach?	Please include details for these types of inspections.	Clarification	



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16.		"For the inspections where samples of nuclear material are taken, at the CNSC's request" – does this mean we do not send samples taken to the IAEA without a request from the CNSC? How does that affect current sampling protocols? Should we request this request?	Clarification is required on the official process for sampling requests.	Clarification	
17.		How does CNSC requesting the acceptance of IAEA unannounced inspections contribute to the overall reduction of time spent on site by IAEA inspectors	This could be a topic of discussion on the proposed future REGDOC workshop.	Clarification	
18.		The section on Complementary Access (CA) does not address sites with multiple facilities and different licensees. If the IAEA is visiting a licensee's facility, it is inappropriate to then initiate a CA to any building on site under another licensee's license.	. Need to add to the document that IAEA inspectors cannot table CAs for other licensees when on a site with multiple licensee's facilities.	MAJOR	Licensees are independent each other and are unable to support these multiple accesses.
19.		For CAs, it mentions item counting of nuclear material and examination of records. This has not been the practice for CAs in the past, is this a new requirement? What is the basis for this change?	Item counting has not been included historically. The addition of this to CA's increases the scope almost to that of a UI. Please clarify if item counting is a new requirement for CAs.	Clarification	
20.		What is meant by "short notice"? Is it the same time frame as for Complementary Access?	Suggest specifying an actual time within which access to IAEA equipment is required, or "a timeframe specified by the IAEA".	Clarification	



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21.	Section 6.4 (Guidance):	Licensees should inform the CNSC of training requirements necessary to access IAEA equipment through design information submissions What if equipment installed is not part of		Clarification	
22.	Section 7.1	an MBA? Documented results of calibration activity or measurement of nuclear material are considered source data. Are there other items outside of scale that would be subject to considering source data for calibration?		Clarification	Request for clarification of the type of items to be included. Weight scales?
23.	7.3 Physical Inventory Taking	Industry does not see a need for including 1B material in this section as it may not be physically possible to accommodate this	Suggest specifying only Group 1A material in this section	MAJOR	Including Group 1 B material would in this section would result in requirements that could not be met.
24.	7.3 CNSC may select a PIT date for the licensee based on availability of CNSC resources.	In cases where the CNSC selects the PIT date for the Licensee, is the Licensee obligated to that date, or is it negotiable? If the date selected by CNSC does not align with Licensee production commitments or resource availability, can the Licensee propose more suitable dates?	Suggest adding some wording to provide for some flexibility for the PIT date to accommodate the licensee's availability as well as the CNSC's.	Clarification	



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ch hitted within 30 clude the the source of ures.	Please include information on how these reports need to be submitted (within 30 days the PIT).	Clarification	
hich needs	Provide clarity on the details of the report and when it should be used (i.e. will we have to generate a report if the ID is a clerical error like a transposed number for example).		
obligation to	Not always the case—perhaps the statement should be "the CNSC mays assign a Canadian	Clarification	

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25.	Section 7.4	Reports on the results of such investigations shall be submitted within 30 days of the PIT, and shall include the licensees' conclusions as to the source of ID and any correcting measures.	Please include information on how these reports need to be submitted (within 30 days the PIT).	Clarification	
26.	7.4	This is a new requirement which needs further clarification	Provide clarity on the details of the report and when it should be used (i.e. will we have to generate a report if the ID is a clerical error like a transposed number for example).		
27.	Section 7.5:	CNSC will assign a Canadian obligation to that material at the time of export."	Not always the case—perhaps the statement should be "the CNSC mays assign a Canadian obligation"	Clarification	
28.	8	<b>Provision of Information</b> All information supplied to the CNSC shall be transmitted using appropriate information security measures. The CNSC's Nuclear Materials Accountancy Reporting (NMAR) e-business	Include statement permitting other agreed upon means to tract inventory & transmit information.	MAJOR	Some licensees set up current system (SBT) with prior consent of CNSC understanding that NMAR would not need to be implemented. Without this flexibility licensees would incur significant costs without any significant improvement in safeguards
29.	Section 8	It states the ICDs/reports submitted to CNSC NMAR or encrypted email can be submitted up to and including Protected B, and alternate arrangements must be made for Protected C or classified?	Please clarify the arrangements for Classified documents.	Clarification	

### Page 9 of 15



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30.	8.1.1 Guidance	<i>Reference to CSA N290.7 Cyber Security for NPP</i>	CSA N290.7 is not implemented nor referenced in current LCHs of NPPs. Not expected for several years. Recommend removing reference until later version.		
31.	8.1.1 Licensees shall have measures in place to prevent the compromise of systems used to generate, store and transmit safeguards- relevant information.	Please confirm if this means that cyber security measures must be in place for these systems.	As cyber security is a growing concern in all industries, suggest changing "shall" to "must".	Clarification	
32.	8.1.1	Electronic reporting through the NMAR e- business system will require initial setup and resources such as Microsoft Excel version changes. Licensees need to ensure they have browser compatibility with the NMAR website and confidence this will not change or changes will be communicated ahead of time.		Clarification	
33.	8.1.2	The document says the shipper shall provide a copy of the Inventory Change Document to the receiver, but does not specify the format of the ICD. Licensees may need the flexibility to change ICDs from .xml to .xls and vice versa.	Industry needs the flexibility to to change ICDs from .xml to .xls and vice versa This is another topic for our workshop	Clarification	



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34.	8.1.2 The correcting ICD will be identical to the original, save for the date,	Please confirm whether this is the "Date" in field/box/label 1004 on the ICD.	Suggest specifying which label this date is referring to.	Clarification	
35.	8.1.2 An inventory change is any increase or decrease in a licensee's nuclear material inventory.	It is not clear how to handle bundle separation	Suggest expanding the definition to cover element separation if it does apply.	Clarification	
36.	Section 8.1.2:	To note, it indicates that submitted ICDs to be corrected for Date, Batch Name, MBA, IC Type, Safeguards Status and Element Code must now be done via the Delete ICD process.	This section needs some more guidance, there have been many questions in the past about how corrections are shown on the ICDs and ledgers. Please include details for corrections for Change of Form ICDs.	Clarification	
37.	Section 8.1.5 P- KMPIS	Reference to Table D-1 and the specific due date should be mentioned. (Due dates are mentioned for other reports in the other sections)	Please include due dates for Table D-1.	Clarification	
38.	Section 8.1.6 second paragraph	Should make reference to Table D-1 for the due date. Same comment for Section 8.1.7.		Clarification	



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39.	8.2 Design information shall be updated and submitted to CNSC as soon as the decision is taken to make changes For the construction of new facilities preliminary design shall be submitted as soon as the decision to construct or authorize construction has been taken, whichever is earlier. An updateshall be submitted to the CNSC no later than 270 days before the start of construction. Similarly, final design informationno later than 270 days before the first receipt of nuclear material at the facility.	Preliminary design is not available at the time of the decision to construct. The decision to construct happens before the start of preliminary design. Final drawings are not available 270 days before the receipt of material. Requirements in this section do not follow standard project schedule.	Suggest allowing for submission of "Approved for Construction" drawings instead of "Final" drawings, with the understanding that "Final" drawings will be submitted when available.	Clarification	



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40.	Section 8.3 (4)	Who determines the "relevance of safeguard"? How?	Please include criteria in the Guidance section for this item.	Clarification	
41.	8.4i 2current drawings of the site, a general description of each building on the site,	In the case where a licensee has multiple facilities on a "site" (i.e. Darlington), how does this apply? Does each facility provide a drawing of all buildings on site, and descriptions of all buildings on site, or does each only include buildings they are operating? Or, can one facility submit drawings and descriptions of buildings on behalf of another facility on the same site?	Suggest providing more flexibility in this section so that one facility can submit Additional Protocol information on behalf of another facility on the same site, such as is now done at Darlington. This would simplify the process and reduce overall effort by some licensees.	Clarification	
42.	8.4 Information required by the Additional Protocol current drawings of the site, a general description of each building on the site	It is unclear how this applies in the case where multiple Licensees share a site. Does each licensee provide a drawing of all buildings on site, and descriptions of all buildings on site, or does each only include buildings they are operating.	This section needs to state that the Licensee is only required to include buildings and descriptions of buildings for which the licensee operates.	Clarification	



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43.	8.4 6. Information regarding Group 1B material: a. for materials exempted from safeguards pursuant to Article 37 of the Safeguards Agreement, the quantities, uses and locations of such material b. for materials exempted from safeguards pursuant to Article 36 of the Safeguards Agreement, but where the material is not yet in a non- nuclear end-use form, information regarding the quantities and uses at each location	Information requested: Does the CNSC have a process to notify a licensee of whether the licensee is in possession of such material, if the licensee has never requested such an exemption under Article 36 or 37?	Need to add to document that CNSC will inform licensees of exempted material being transited to them	Clarification	



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44.	9	Licensees would like to see more guidance on retention of records. In particular, ICDs.	Add additional guidance on retention of records.	Clarification	
45.	Table D1 ICD – Next business day following the inventory change.	This time limitation requirement puts a strain on the supporting Fuel & Physics group in preparing the ICDs and associated fuel information file.	Suggest providing more flexibility in submitting an ICD, i.e. within 3 business days.	Clarification	
46.	Table D2: Line 370	"Enter the code for the shipping MBA" – Does this mean that there is no need to receive via GA from Canadian Non-MBA facilities?	Clarification is required for the process of receiving material from non-MBA facilities.	Clarification	
47.	Table D4:	Fuel – Assemblies Solid Waste - Hull	Please define 'Assemblies', "Hulls" consistent with IAEA definitions	Clarification	
48.	Table D5:	It is not clear how the new isotope code "J" is to be applied?	Guidance is required on when and how this new code is to be used.	Clarification	