

REGDOC-2.12.3, Security of Nuclear Substances: Sealed Sources / La sécurité des substances nucléaires : sources scellées
 (consulted as RD/GD-338, Security Measures for Sealed Sources / Mesures de sécurité pour les sources scellées)

Comments received from public consultation / Commentaires reçus dans le cadre du processus de consultation

Comments received:

- during public consultation (March 21 to June 8, 2012) : 127 comments from 22 reviewers; including (four) 4 classified comments were received
- during “feedback on the comments received” (June 27 to July 19, 2012): 7 comments were received from 4 reviewers

Commentaires reçus :

- lors de la période de consultation (du 21 mars au 8 juin, 2012): 127 commentaires reçus de 22 examinateurs, dont 4 commentaires confidentiels.
- lors de la période d’observations sur les commentaires reçus (du 27 juin au 19 juillet 2012) : 7 commentaires reçus de 4 examinateurs

Comments received during public consultation / Commentaires reçus lors de la période de consultation:

	Section	Name	Organization	Organization Type	Comment	CNSC Response
1	General	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	Best Theratronics has reviewed the CNSC’s proposed RD/GD-338 draft document, <i>Security Measures for Sealed Sources</i> . We believe the document is well laid out and addresses the safety and security concerns surrounding the handling, usage, storage, and transportation of sealed sources. Although Best Theratronics believes RD-338 to be a well researched and thought-out document, we have several comments that we believe will help to clarify and strengthening the proposed document.	Thank you for reviewing the document.
2	General	LiHeng Liang, Clinical Physicist	Hôpital général juif / Jewish General Hospital	Industry	Note: I am working as a medical physicist and a RSO in a radiation oncology department of a hospital. All the comments are based my personal working environment. It is a very good document regarding to the safety measures for sealed radioactive sources/materials.	Thank you for reviewing the document.

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3	General	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	To facilitate Best Theratronics' business in the USA, Best Theratronics possesses a USNRC Materials license. As part of this license, Best Theratronics is required to follow USNRC security orders. We are pleased that, overall, document RD-338 is consistent with the USNRC security orders.	Thank you for your comment.
4		[5 physiciens/ physiciennes] Aimée Lauzon Normand Frenière, Marie-Joëlle Bertrand Camille Pacher Caroline Duchesne	AQPMC (Association québécoise des physiciens médicaux cliniques) Centre de santé et de services sociaux (CSSS) de Laval CSSS Trois-Rivières – CHRTR CSSS de Chicoutimi CSSS Champlain-Charles LeMoynes L'hôpital Maisonneuve- Rosemont	Industrie	Nous vous soumettons nos commentaires sur le projet de document d'application de la réglementation GD-338, <i>Mesures de sécurité pour les sources scellées</i> . Nous remercions la CCSN de nous offrir l'opportunité de commenter tout projet de publication. En tant que titulaires de permis, nous pouvons poser un regard critique sur les implications que pose une mise en œuvre de nouvelles directives ou exigences réglementaires. Notre souci est d'assurer une utilisation sécuritaire de l'énergie nucléaire dans un environnement hospitalier. Nos commentaires seront donc teintés par la mise en application du GD-338 dans un milieu hospitalier. Nous reconnaissons la nécessité de prendre des mesures minimales de sécurité pour prévenir la perte, le sabotage, l'utilisation illégale, la possession illégale et l'enlèvement illégal des sources scellées, tant lors du stockage sur le site d'une activité autorisée que lors du transport ou stockage en transit. La rédaction d'un guide d'application de la réglementation en la matière aidera grandement le titulaire de permis dans l'élaboration de ses mesures de sécurité.	Nous vous remercions pour les commentaires que vous avez soumis. Pour clarification, le document n'est pas seulement un guide (GD), c'est aussi un document d'application de la réglementation (RD) qui inclut des exigences et des conseils pour rencontrer ces exigences.

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5	General	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	Cameco Corporation (Cameco) appreciates the opportunity to comment on RD/GD-338 Security Measures for Sealed Sources... One general comment we would like to make is that the detail and rigor of the requirements for security high risk sources seems generally reasonable, however, for operations such as ours who possess only category 4 and 5 sources it is not entirely clear in all cases what the expectations are. It is stated that for Category 4 and 5 sources this document represents prudent management practices, however, this wording leaves open the possibility of misinterpretation; specifically, the misinterpretation that the full rigor of the requirements of the high-risk sources would be appropriate for low-risk sources. It is recommended that the application of this document be further clarified to indicate, for example, that with a lower risk the rigor of application of these practices should also be reduced.	<p>Thank you for reviewing the document. Text has been revised to include a glossary entry for “prudent management practices”, and text in sections 2.1 and 2.2 has been revised and/or expanded for clarity.</p> <p>prudent management practices Include ensuring that sealed sources are secured to prevent illegal use, theft or sabotage, and that a periodic inventory is carried out to ensure sealed sources are at their designated location and are secure.</p> <p>Additional guidance on prudent management practices may be found in section 2.34 of the IAEA Safety Standard “<i>International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources</i>” (Safety Series No. 115).</p>
6	General	Alan Brady, Director	TISI Canada Inc.	Industry	We find the guide to include requirements and guidelines that we in our company already have in place for category 2 sources and devices.	<p>Thank you for reviewing the document. For clarification please note that <i>Security Measures for Sealed Sources</i> is not strictly a “guide”, but is a “regulatory document/ guidance document” that includes both requirements and guidance on how to implement applicable requirements.</p>

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7	General comment	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>The term Category 1, 2, 3, 4 and 5 as it relates to sealed sources is easily confused with Category I, II, III nuclear material as defined in schedule 1 of the Nuclear Security Regulations.</p> <p>Bruce Power recommends using the “security group” terminology outlined in IAEA-TECDOC-1355 Table 2 (e.g. Security Group A, B, C, D) to eliminate confusion.</p>	<p>No change. The categorization of radioactive sources has been established by the IAEA (reference IAEA Safety Standard Series No. RS-G-1.9 “<i>Categorization of Radioactive Sources</i>”). Canada has agreed as an IAEA member state to use the IAEA categories (1, 2, 3, 4, 5) to ensure consistency with IAEA standards, recommendations and guidance. Section 2.2 and the glossary both provide explanations of categories 1 through 5.</p>
8	General comment	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>This Regulatory Document is intended to govern security for sealed sources used in a variety of facilities, industries and environments. High security sites already comply with the <i>Nuclear Security Regulations</i> and related standards to protect Category I, II, III nuclear material against theft or sabotage. This includes access controls, physical barriers, intrusion detection systems, personnel and vehicle search, security clearance and an on-site armed nuclear response force capable of defending against the Design Basis Threat and any other credible threat identified by a threat risk assessment.</p> <p>Bruce Power requests confirmation from the CNSC that requirements in this RD related to access controls, detection of unauthorized access, physical barriers and intrusion detection systems are covered by existing measures implemented by licensees at high-security sites.</p>	<p>No change. If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i>. In cases of high-security nuclear sites the expectation is that the licensee would provide the required details as to how they meet all of the applicable requirements.</p>

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					<p>As an alternative, the CNSC could consider making this RD applicable to non high-security sites only and create a guidance document specific to high-security sites taking into account security measures already required by the NSRs. This would eliminate confusion and the need for interpretation.</p> <p>Confirmation on interpretation requested.</p>	
9	General comment	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>The format of RD-338 is confusing in that it moves between “requirements” and “guidance”.</p> <p>Bruce Power recommends RD-338 be formatted similar to other regulatory documents which better streamlined and read more easily.</p>	No change. <i>Security Measures for Sealed Sources</i> is formatted similarly to other CNSC Regulatory Documents (e.g., RD/GD-210). The “guidance” is clearly marked as such, which was previously requested by a number of stakeholders.
10	Throughout	Security division	Ontario Power Generation (OPG)	Industry	Recommend changing Category 1, 2, 3 to another scheme as use of this language may be confused with Category I, II, III nuclear material stored in high security areas.	No change. The categorization of radioactive sources has been established by the IAEA (reference IAEA Safety Standard Series No. RS-G-1.9 “ <i>Categorization of Radioactive Sources</i> ”). Canada has agreed as an IAEA member state to use the IAEA categories (1, 2, 3, 4, 5) to ensure consistency with IAEA standards, recommendations and guidance. Section 2.2 and the glossary both provide explanations of categories 1 through 5.

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11	Commentaires généraux	[5 physiciens/physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	<p>La plupart des transporteurs privés de matières dangereuses nucléaires au Canada ne sont pas assujettis aux règlements de la CCSN. Cette situation a toujours imputé aux titulaires de permis canadien les responsabilités réglementaires lors du transport, même s'ils n'ont aucun lien hiérarchique et d'autorité envers le transporteur, outre un pouvoir économique d'octroi d'un contrat de transport. Le présent guide vise à aider les titulaires de permis canadien à clarifier cette situation. En plus de soutenir le titulaire de permis, pourquoi la CCSN ne remet-elle pas en question la prémisse ? L'assujettissement complet de tous les transporteurs en sol canadien aux règlements de la CCSN dégagerait le titulaire de permis canadien d'une responsabilité lors du transport, qui lui est impossible de contrôler pleinement. Nous sommes conscients que ce sujet va au-delà de la portée du guide.</p>	<p>Pour clarification, le document n'est pas seulement un guide (GD), c'est aussi un document d'application de la réglementation (RD) qui inclut des exigences et des conseils pour rencontrer ces exigences.</p> <p>Il incombe au détenteur de permis de s'assurer qu'il y ait un processus lors de la réception de matières radioactives et pour contrôler les inventaires afin de s'assurer que ces matières ne soient pas perdues ou égarées. Le détenteur est aussi responsable d'utiliser des transporteurs privés qui remplissent les obligations du document <i>Mesures de sécurité pour les sources scellées</i>.</p> <p>Bien que les activités de transport ne requièrent majoritairement pas de permis elles sont néanmoins assujetties aux exigences du <i>Règlement sur l'emballage et le transport des substances nucléaires</i> et les transporteurs doivent également s'y soumettre. Une des exigences réglementaires est que les transporteurs transportent la matière conformément aux instructions de l'expéditeur. Les exigences demandent également que les transporteurs développent et implémentent un programme de radioprotection et qu'ils mettent en œuvre des procédures de travail pour assurer la conformité au règlement.</p>

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12	Commentaires généraux	[5 physiciens/physiciennes]	AQPMC (Association québécoise des médecins cliniques)	Industrie	La lecture du guide peut nous faire craindre une application sans discernement qui ne tient pas compte de la réalité d'un hôpital où le public y circule. Les ressources matérielles et humaines étant généralement limitées, il serait opportun d'accepter une documentation réglementaire succincte et un processus de contrôle simple, mais efficace.	Pour clarification, le document n'est pas seulement un guide (GD), c'est aussi un document d'application de la réglementation (RD) qui inclut des exigences et des conseils pour rencontrer ces exigences.
13	Throughout	Wade Parker, Station Director, Point Lepreau Generating Station	NB Power	Industry	RD/GD-338 was found to be very confusing to follow as it was not clear in many areas. It would appear that most, if not all, requirements are met through the NSRs for nuclear sites however some of the wording in RD/GD-338 seems to contradict that appearance.	No change. If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i> . In cases of high-security nuclear sites the expectation is that the licensee would provide the required details as to how they meet the applicable requirements. Also, if sources leave the site, the requirements in <i>Security Measures for Sealed Sources</i> apply.
14	Vérification antécédents + casier judiciaire :?	Marie-Joëlle Bertrand, physicienne médicale	CSSS de Chicoutimi	Industrie	Vérification antécédents + casier judiciaire : qu'advient-il des accompagnateurs et même des patients eux-mêmes pour un traitement de curiethérapie ?	Les accompagnateurs et les patients n'ont pas besoin de se soumettre à cette exigence puisqu'ils sont généralement escortés ou sont sous la surveillance d'un membre du personnel hospitalier. Cette exigence s'applique au personnel autorisé qui ont un accès « sans escorte » et qui ne sont pas surveillés.

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15	Vérification antécédents + casier judiciaire :?	Marie-Joëlle Bertrand, physicienne médicale	CSSS de Chicoutimi	Industrie	Vérification antécédents + casier judiciaire : pourrait limiter l'embauche ou l'avancement (par exemple la proposition d'une spécialisation à un technologue) pour une faute passée légère et non liée à l'emploi, ce qui est discriminatoire et contraire à la Charte des droits de la personne du Québec. Ceci pourrait impliquer des employés d'autres départements (réception des marchandises, par exemple).	<p>Nous avons modifié cette section et ajouté des alternatives à la vérification de casier judiciaire et plus d'informations dans la section-conseil 3.3.4 pour aider les titulaires de permis.</p> <p>Un nouveau diagramme a été ajouté en annexe B pour expliquer les étapes à suivre lors de la vérification de casiers judiciaires.</p> <p>Cette exigence s'applique au personnel qui ont un accès « sans escorte » aux sources scellées à haut risque pour s'assurer que ces individus ne représentent pas un risque déraisonnable pour la santé et la sécurité des personnes, ni la sécurité de l'installation. Cette mesure s'applique au personnel d'entretien ou à des contacteurs qui ont un accès « sans escorte ». Sinon, celles-ci doivent être escortées par une personne autorisée.</p> <p>Cette mesure ne doit pas, dans aucun cas, être utilisée de manière discriminatoire à l'embauche du personnel ou lors de l'avancement de carrière lié à l'emploi.</p> <p>Si un individu qui a commis une faute légère ou a été accusé d'un délit mineur dans le passé, le titulaire de permis est responsable d'évaluer si l'individu peut représenter un risque déraisonnable pour la santé et la sécurité des personnes et/ou la sécurité de l'installation.</p>

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16	Overall (Scope, 1.2)	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	The document seems to be geared towards users of radiography devices, or other small packages of sealed sources. This seems evident in the sections describing the requirements for secure containers (3.2.5). We believe further considerations should be given to the requirements and guidelines for Cat 1 and 2 quantities of Co60 and Cs137. The types of containers used to store/transport a Cat 1 Co60 source are very different than for a Ir192 source. As such, the requirements to define a container as secure are different. We also wonder how such a security program would look in a hospital with a Co60 teletherapy unit, which is a Cat 1 source. There seems to be a need for more guidance as to how the requirements set out in RD338 could be applied to such a situation.	Section 3.2.5 amended with new text for sources stored in pools and for large containers. The various devices used to store and transport nuclear substances are approved under a separate certification program; the principals for securing these devices in storage are generally the same. Text was added in section 3.2.5 for containers over 500 kg that are typically used for category 1 and 2 quantities of Co60 and Cs137.
17	1.3	Alan Brady, Director	TISI Canada Inc.	Industry	Page 2 (j). Typo. Should be the word “workers”.	Comment noted, text in Section 1.3 has been amended.
18	Section 2, contexte	[5 physiciens/ physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Nous appuyons la reconnaissance que toutes les sources radioactives ne peuvent et doivent être traitées de la même manière à l’égard des risques qu’elles posent.	Merci pour votre commentaire.
19	Section 2, contexte	Aimée Lauzon, Laval Normand Frenière, CHRTR	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Nous appuyons le traitement de plusieurs sources individuelles en un même lieu de stockage ou d’utilisation comme une source unique aux fins de catégorisation du niveau de dangerosité.	Merci pour votre commentaire.

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20	2.0	Jeanne Miller	Shlumberger Canada Limited	Industry	<p>Aggregation of source activities was not formally addressed prior to this document.</p> <p>If multiple sources are in storage at the same site, or being transported on the same vehicle, will aggregation of activities still be applied if there are two barriers for each individual source (envelopes of security): ie sources are locked in a secure source shield/pig with an approved, unique lock, the source source shields are chained and locked individually to an integral part of the storage area or truck and/or sources are locked within individual pits or storage areas, or compartments on the vehicle?</p> <p>The NRC currently accepts these means to not apply aggregation to the calculation of total source activity and categorization.</p>	<p>Additional text added in section 2.2.2 to include aggregation of various radionuclides and A/D ratio:</p> <p>“The A/D ratio for a single radionuclide is the activity (A) of the source compared to the activity determined to define a threshold of danger (D). For the aggregation of various radionuclides, the sum of the A/D ratios is used to determine a final category as described in TECDOC-1344, <i>Categorization of Radioactive Sources</i> [2] and RS-G-1.9, <i>Categorization of Radioactive Sources</i> [5]. If multiple sources from different categories are stored, the highest category should suffice (e.g., storage of category 2, 3 and 4 sources would meet the security requirements for category 2).”</p>
21	2.1	Michael James, Radiation Safety Officer	Canadian Light Source	Industry	<p>Does the document apply <i>only</i> to the substances identified in Table A? (TECDOC-1344 refers to several other radioisotopes).</p>	<p>No change to text. This document applies to all substances identified in Table A which is based on TECDOC-1344.</p> <p>The categorization of radioactive sources has been established by the IAEA (reference IAEA Safety Standard Series No. RS-G-1.9 “<i>Categorization of Radioactive Sources</i>”). Canada has agreed as an IAEA member state to use the IAEA categories (1, 2, 3, 4, 5) to ensure consistency with IAEA standards, recommendations and guidance. If additional information is required in the case of any</p>

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						categorization of a radioactive source this document can be referenced.
22	2.1	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	The definition of “close proximity” should be better defined. It would make sense that sources shipping with the same container, or stored within the same radiation controlled area, should be aggregated to determine the associate risk category. However, what if sources are stored/used in separate radiation controlled areas within the facility? If each area has its own, independent security, then it may not be correct to take the aggregated activity of the facility in determining risk.	Agreed – the term “close proximity” refers to multiple sources in storage not in use. Text in section 2.1 was amended to provide clarification : “When sources are stored or used in separate controlled locations, they may have independent security measures commensurate with the activity level of the source; in this case, aggregation considerations are not applicable. In some circumstances, an entire site is not considered a single use or storage location.”
23	2.1	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	The term “in close proximity” is not entirely clear. In a uranium milling facility, there are several separate “processes” that are occurring on the same site that may involve the use of nuclear density gauges. In this respect, it is assumed that “in close proximity” means associated with a specific aspect of the process; further is it assumed that this does not apply to all sources collectively on a site (i.e., the entire mill is considered a “process”). It is recommended that the term “in close proximity” be clarified, e.g., use the term “separate manufacturing processes” or a statement indicating that an entire site is not considered a single use or storage location.	Agreed – the term “close proximity” refers to multiple sources in storage not in use. Text in section 2.1 was amended as shown in comment 22.

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24	2.2	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>Though source categories 4 and 5 are mentioned, the threshold between these categories is never specified.</p> <p>If sources are supposed to be classified as Category 4 or 5, the specifications/thresholds for these categories should be defined.</p>	<p>Threshold are defined by the IAEA Safety Standard RS-G- 1.9 as mentioned in section 2.2.1</p> <p>From a security perspective categories 4 and 5 are considered to be the least dangerous. Table A applies to radioactive sources that may pose a significant risk to individuals, society and the environment (i.e., Categories 1-3).</p> <p>A table was added (new Appendix C) to include commonly used radioactive source and their category (including category 4 and 5 sources).</p>
25	2.2.1	Michael James, Radiation Safety Officer	Canadian Light Source	Industry	The last paragraph of 2.2.1 might be better placed in subsection 2.1.	No change – the paragraph in question refers to “application” not “background.
26	2.2.2	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>The example used for multiple sealed source storage is not worded well. It described “sealed sources at a single licensed location”. It does not make sense that “in close proximity” would mean the entirety of a licensed location.</p> <p>Again, the term “in close proximity” should be clarified and a more clearly worded example given, for example using the term “in a single storage area” rather than “single licensed location”.</p>	Agreed – the term “close proximity” refers to multiple sources in storage not in use. Text in section 2.1 was amended as shown in comment 22.

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27	3.1.2	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Re text “<i>The licensee should develop and maintain a threat and risk assessment to determine vulnerabilities in the existing physical protection systems designed to protect against the loss, sabotage, illegal use, illegal possession, or illegal removal during the storage or transportation of the sealed source. The threat and risk assessment, updated annually, is also used to determine mitigating security measures to address identified threats, manage risks or reduce/eliminate vulnerabilities.</i>”</p> <p>The threat risk assessment should be reviewed annually and updated only as required based on changes that impact the threat level.</p> <p>Bruce Power recommends submissions to the CNSC are required only when changes are made to the threat risk assessment. Bruce Power supports an annual review of the TRA.</p>	<p>Comment noted and section 3.1.2 has been amended to include the following text:</p> <p>The licensee should develop and maintain a threat and risk assessment to determine vulnerabilities in the existing physical protection systems designed to protect against the loss, sabotage, illegal use, illegal possession, or illegal removal during the storage or transportation of sealed sources. This could include:</p> <ul style="list-style-type: none"> - identification of assets that require protection - credible threats - mitigation measures to minimize any identified threats, risks or vulnerabilities. <p>The threat and risk assessment should be reviewed annually and updated as required based on changes that affect the threat level.</p>

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28	3.1.2	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>The requirement for a threat and risk assessment does not specify if it require for all categories of sources or if the degree of rigor in the assessment is to be commensurate with the risk of the sources. Further, Cameco already has a standard for performing risk assessments and it seems reasonable that this risk assessment could be incorporated into our existing systems.</p> <p>It is recommended that this section clarify if this applies to all source categories. Clarification is also requested regarding whether this risk assessment can be incorporated into existing assessments.</p>	<p>Comment noted and section 3.1.2 was amended to include the following text:</p> <p>The degree of rigor of a threat and risk assessment should follow the graded approach and should be commensurate with the category and risks associated with the sealed sources. This threat and risk assessment may be incorporated into existing assessments.</p>
29	3.1.2	Security division	Ontario Power Generation (OPG)	Industry	<p>For the following text:</p> <p>Guidance for general security measures The licensee should develop and maintain a threat and risk assessment to determine vulnerabilities in the existing physical protection systems designed to protect against the loss, sabotage, illegal use, illegal possession, or illegal removal during the storage or transportation of the sealed source. The threat and risk assessment, updated annually, is also used to determine mitigating security measures to address identified threats, manage risks or reduce/eliminate vulnerabilities.</p> <p>Recommend annual TRA review, but actual update submission to CNSC is only when important changes are completed at the facility or if significant threat level change occurs.</p>	<p>Comment noted and section 3.1.2 was amended as follows:</p> <p>The threat and risk assessment should be reviewed annually and updated as required based on changes that affect the threat level.</p>

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30	Table B	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>Based on the descriptions within the categories, it appears that these requirements apply to storage and transport, but not use of the sources, i.e., it is not possible to put a sources that is in used inside of a secure container.</p> <p>It is recommended that if it is the case that these requirements apply to storage and transport only that this be clarified in the title of the table or in the reference to the table in section 3.1.2. This may also be defined in Section 2.1 as well.</p>	Security measures apply during their entire lifecycle (i.e., “cradle to grave”) to the extent practicable. Section 1.1 and the introduction were amended to include “during their entire lifecycle”.
31	Table B	NWMD	Ontario Power Generation (OPG)	Industry	<p>Information in Table B is in a different order than source material in sections 3 and 4. Also, the information is not organized by activity (storage/use vs. transportation), which makes it more difficult for a user to determine the requirements applicable to the activity.</p> <p>Suggestion: Make Table B into 2 tables, one for storage and use of sealed sources, and one for transportation aspects.</p>	Table B has been amended to follow section 3 and 4.
32	Table B	Security division	Ontario Power Generation (OPG)	Industry	<p>For both Category 2 High Risk and Category 3 Medium Risk sources (OPG does not possess Category 1 High Risk sources):</p> <p>First row of Table B – “Facility Security Plan” – “updated annually or when important changes are done at the facility”</p> <p>Recommend annual FPS review, but actual update submission to CNSC is only when important changes are completed at the facility.</p>	<p>Comment noted and text 3.3.2.1 amended:</p> <p>The site security plan shall be reviewed by the licensee at least once a year and updated based on changes to the physical or operational security measures or to address any changes within the licensed facility.</p>

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33	3.1.2, Table B	Michael Dion	National Research Council of Canada (NRC)	Government	In Table B, pp. 7-8 are listed requirements for “Perimeter and physical barrier (1 st line of defense)”.	The reference to the 1 st line of defense has been removed.
34	Table B	Security division	Ontario Power Generation (OPG)	Industry	<p>For Category 2 High Risk sources (OPG does not possess Category 1 High Risk sources):</p> <p>Third row of Table B – “Security of storage (2nd line of defense)” –“ equipped with a minimum of two intrusion detection systems”</p> <p>OPG is of the opinion that two intrusion detection systems is excessive when one supervised intrusion detection system including two intrusion detection devices would provide the reliability and probability of detection required for sealed sources. Supervised systems also provide trouble alarms in the case of any fault that prompts response and compensatory measures.</p> <p>Recommend change of word ‘systems’ to devices.</p>	<p>Agreed. Table B was amended as follows: The reference to “two intrusion detection systems” was replaced with “one intrusion detection system”. The reference to the second line of defence has been removed.</p> <p>Also, text was added in section 3.2.3.2 to provide additional guidance on the use of intrusion detection devices.</p>
35	3.1.2, Table B	Michael Dion	National Research Council of Canada (NRC)	Government	Is it within the purview of the CNSC to prescribe personnel background checks? If not, then in Table B, pp. 7-8, delete the row for “Personal trustworthiness or background checks” and all related sections. If this authority can be verified, then change Table B, pp. 7-8, so that current employees in a facility with 5 or more years of experience are grandfathered and not required to obtain a new criminal records name check or reference, education and employment verification.	<p>Text in section 3.3.4 has been revised for clarity, and a new Appendix B has been added.</p> <p>Section 12(1)(c) of the <i>General Nuclear Safety and Control Regulations</i> provides the regulatory basis to establish personal trustworthiness and reliability checks. The Commission has explicit statutory authority to make regulations “respecting the qualifications for, and the training and examination of ...persons employed in a nuclear facility or other place where a</p>

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						<p>nuclear substance or prescribed equipment is produced, used, possessed, packaged, transported, stored or disposed of...” (para 44(1)(k)). Furthermore, the NSCA requires the CNSC to implement Canada's international obligations, and the proposed measures to ensure trustworthiness and reliability reflect the requirements laid out in the IAEA’s <i>Code of Conduct on the Safety and Security of Radioactive Sources</i> (20(e)(viii)).</p> <p>Requirement for trustworthiness will be by license condition, and general guidance is provided in section 3.3.4.</p> <p>All employees granted unescorted access must have a determination of trustworthiness and reliability. The level of investigation needed for employees who have been employed over five years is not the same as that required for new or recently hired individuals. A CNRC is required every five years but the reference, education and employment checks would not be required for existing staff only for new hires. Section 3.3.4 was amended to include alternatives to CRNC.</p> <p>A new process chart explaining the steps for assessing a person’s criminal record has been added in appendix B for additional guidance.</p>

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36	3.1.2, Table B	Wade Parker, Station Director, Point Lepreau Generating Station	NB Power	Industry	Table B in section 3.1.2 requires some clarification. The Nuclear Security Regulations (NSR) provide stringent security measures that Protected Areas (PA) of high security sites must meet in order to maintain their licence and remain in operation. For storage of Category 2 sources within the NSR PA, please clarify whether the RD/GD-338 requirements for the 1 st and 2 nd lines of defense are in addition to, or are they met by, the NSR requirements.	No change. This will require a specific assessment for each unique situation. If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i> . In cases of high-security nuclear sites the expectation is that the licensee would provide the required details as to how they meet all of the applicable requirements.
37	Table B, Security levels and security objectives	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Table B provides a good format in that it outlines requirements specific to each source category; it is easy to read and understand. The table, however, is inconsistent with the body of the RD. Bruce Power recommends the RD be updated to align the table contents with the RD contents once the details have been fully vetted and revised through the review/comment process.	Comment noted and the body of the table has been amended to be aligned with the content of the RD.
38	Section 3, Tableau B	[5 physiciens/physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Dans un contexte hospitalier, même si un employé a eu une vérification de sécurité, certaines tâches sont effectuées en solo. Par exemple, une seule personne effectue les tâches suivantes : le contrôle de la qualité, la maintenance et réparation, l'entretien ménager. L'ajout de « mesure optimale » est important et doit demeurer.	Commentaire noté, “mesure optimale” va demeurer dans le tableau.

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39	Table B	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Please clarify Table B: The second and third rows taken together imply a minimum of three layers of physical barriers. This is not consistent with section 3.2.5.1 where a minimum of two barriers are required.</p> <p>Furthermore, the 3rd row of the table assumes a physical barrier at the source such as a container or cabinet. This is not the case at many facilities where sources are stored in pools. Such pools have delay inherent in their design. An individual cannot simply remove a source from such pools without immediate personal harm. Safe removal is only possible utilizing submerged containers weighing over 500kg, as specified in section 4.2.2. Manual or mechanical tools required to remove sources from the pools require expertise, various alarms will activate prior to removal.</p> <p>The installation of an additional barrier immediately surrounding such pools is not operationally practical and would be unsafe to personnel in emergencies.</p>	<p>Comments noted; the references to the first and second line of defense have been removed to avoid confusion and section 3.2.5.1 was amended. The minimum required is two physical barriers.</p> <p>Text was added in section 3.2.5.1 to reflect this comment: “Note that sealed sources stored in pools may have safety features inherent to their design that may substitute for one or both layers of physical barriers”.</p> <p>Text amended in section 3.2.5.1 to state: “...implement a minimum of two different physical barriers, to prevent unauthorized access to sealed sources in storage and provide delay sufficient to enable response personnel to intervene as required.”</p>
40	Table B	Thomas Levey	Acuren Group Inc.	Industry	<p>Table B states that two intrusion detection systems is required. This is unreasonable for a vehicle that transports isotopes. If the table is meant only for fixed storage facilities, then it should be made clear in the table or prior to the table. It is costly enough just to manage and maintain one detection system.</p>	<p>Table B was modified: The reference to “two intrusion detection” was replaced with “immediate” detection.</p> <p>Also, text was added in guidance section to provide guideline on the use of intrusion detection devices.</p>
41	Table B	Thomas Levey	Acuren Group Inc.	Industry	<p>Access Control - It is unreasonable to have a 2 person rule. The word "Optimal" should be removed.</p>	<p>No change to text. “Optimal” does not imply requirement.</p>

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42	Table B	Security division	Ontario Power Generation (OPG)	Industry	<p>For Category 2 High Risk, Category 3 Medium Risk, and Category 4-5 Low Risk sources (OPG does not possess Category 1 High Risk sources):</p> <p>Sixth row of Table B – “Transportation Security Plan” – “ must develop and maintain a generic Transportation Security Plan”</p> <p>n/a - OPG contracts with qualified vendors to conduct all transport of sealed sources stated in Table A. Vendors would be responsible to meet this requirement.</p>	<p>No change to text. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p> <p>The licensee is responsible to ensure they contract carriers that meet the applicable requirements.</p>
43	Table B	Thomas Levey	Acuren Group Inc.	Industry	Response protocol - Contacting local law enforcement is okay for an actual incident, but unreasonable for any type of drill or testing of effective response time. Law enforcement does not appreciate false alarms or checking responses.	No change to text. The guidance suggests making a local law enforcement or police agency aware of the safety/security concerns of the facility in the event they have to respond to an actual alarm or security incident (e.g., intrusion).
44	Table B	Thomas Levey	Acuren Group Inc.	Industry	Vehicle Security - GPS, two person rule, and trustworthiness verification is again unreasonable. There are economic factors related to very high costs for implementing these 3 items. The wording of "Optimal" is not clear. Because it is written into the guide will lead to expectations that it is required at some point later. There should be no license conditions set forth if this is to only be a guide.	<p>“Optimal” does not imply requirement.</p> <p>Reference to “optimal” for GPS has been removed in Table B. GPS or package tracking system is a requirement for transport of category 1 and 2 sources.</p> <p>Table B provides a summary of security objectives but specific criteria is found in each individual section. Trustworthiness verification is a requirement for individual with unescorted access to category 1, 2 or 3 sealed sources. Two person rule is a good practice but is not a requirement under <i>Security Measures for Sealed</i></p>

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						<p><i>Sources.</i></p> <p>For clarification please note that <i>Security Measures for Sealed Sources</i> is not only a “guide”, but is a “regulatory document/guidance document” that includes both requirements and guidance on how to implement applicable requirements.</p>
45	Table B	Security division	Ontario Power Generation (OPG)	Industry	<p>For Category 2 High Risk, Category 3 Medium Risk, and Category 4-5 Low Risk sources (OPG does not possess Category 1 High Risk sources):</p> <p>Eighth row of Table B – “Vehicle Security” –</p> <ul style="list-style-type: none"> - “ Vehicle must be equipped with anti-theft or vehicle disabler and intrusion detection system, or equivalent measures” - “Vehicle must be equipped with a minimum of two technical barriers to prevent unauthorized removal - “Source must be protected against unauthorized access and removal <p>n/a - OPG contracts with qualified vendors to conduct all transport of sealed sources stated in Table A. Vendors would be responsible to meet this requirement.</p>	<p>No change to text. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p> <p>The licensee is responsible to ensure they contract carriers that meet the applicable requirements.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
46	Table B	Thomas Levey	Acuren Group Inc.	Industry	<p>Criminal Checks - This has not been an expectation in the past. It appears that this is following the USA NRC requirements. Again there is an economic factor related to the cost of performing this check. Even if the check is performed, what is the criteria for preventing an operator from having access to sources. For example if an operator has a criminal record for theft does this mean they cannot be allowed access?</p>	<p>Text has been added to section 3.3.4.1 to recognize alternatives to a criminal record check, and to section 3.3.4.2 to provide guidance for screening or personnel with access to high risk radioactive material. A process chart explaining the steps for assessing a person's criminal record has been added in appendix B for additional guidance.</p> <p>Section 12 (1) (c) of the General Nuclear Safety and Control Regulations provides the regulatory basis to establish personal trustworthiness and reliability checks. Requirement for trustworthiness will be by license condition and general guidance is provided in section 3.3.4.</p> <p>All employees granted unescorted access must have a determination of trustworthiness and reliability. The level of investigation needed for employees who have been employed over five years is not the same as that required for new or recently hired individuals. A CNRC is required every five years but the reference, education and employment checks would not be required for existing staff only for new hires.</p>

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47	Table B	Thomas Levey	Acuren Group Inc.	Industry	<p>The table implies that the licensee is responsible for carriers to have a verification check. This is totally unreasonable. Licensees have no control over the carriers for implementation of security measures. CNSC needs to have a system in place where carriers must meet CNSC expectations separate from the user of isotopes. Maybe Carriers should have a transportation license and implement a specific radiation protection and security measures systems.</p>	<p>No change. Commercial carriers are subject to CNSC licensing, and the licensee is responsible for the security when using commercial carriers until the nuclear substances reaches its licensed destination.</p> <p>Transport activities are regulated by both Transport Canada TGD Regulations and the CNSC <i>Packaging and Transport of Nuclear Substances</i> (PTNS) Regulations. Carriers are regulated under PTNS Regulations and are required to develop and implement a radiation protection program as well as work procedures to ensure compliance with the regulation and transport the material in accordance with the consignors instructions.</p> <p>CNSC staff is working with Transportation Canada to identify security gaps and develop agreements to enforce regulations.</p>
48	3.2	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>It is not stated explicitly that the technical security measures described in the associated subsections of Section 3.2 only apply as indicated by Table B. Further, the associated subsections are worded such that it appears that all aspects discussed are required.</p> <p>It is recommended that Section 3.2 contain some preliminary text indicating that the security measures described in the associated subsections apply as described in Table B and that the security measures described do not apply to all source categories. Further, for</p>	<p>New appendix added (Appendix C), to provide clarification on the category of most commonly used radioactive sources, including category 4 and 5 sources. Table B provides guidance on how security measures should apply to categories.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					clarification, it is recommended to state or clarify in each subsection that only those aspects associated with the specific source category of interest are required or applicable.	
49	3.2	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>It is stated in Section 3.1.1 that general security measures apply to sources while in storage. Section 3.2 does not contain this clarification.</p> <p>It is recommended that Section 3.2 contain a statement to clarify when these measures apply, i.e., while a source is in storage.</p>	Security measures apply during their entire lifecycle (i.e., cradle to grave). Section 1.1 and the introduction were amended to reflect this comment.
50	3.2 and related subsections	Jean St-Pierre	Stantec	Industry	<p>It is not clear if section 3.2.2.2, 3.2.3.2, 3.2.5.2.1, 3.2.5.2.2, 3.2.6, 3.2.7 were written for category 4 and 5. They contain measures required for higher levels of security when they are matched with the content of the Table. The present interpretation would be to assume a universal approach to security when it is not the goal. Should the goal be to list a series of universal steps to security they must list only the items common to all categories.</p> <p>Section 3.2.8 is clearly not written for portable gauge users. To even contemplate this level of security would be an extreme burden for licensees.</p>	<p>New appendix added (Appendix C), to provide clarification on the category of most commonly used radioactive sources, including category 4 and 5 sources. Table B provides guidance on how security measures should apply to categories.</p> <p>Section 3.2.8 is not specially addressed for portable gauge users; it applies only if the licensee uses a security guard service.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
51	3.2.1, Requirements for technical security measures	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>The IAEA document specifies which technical security measure is required for the category classification. This document should also specify how these requirements apply to the different categories as some expectations differ from the IAEA document. It implies that the same rigor for technical security measures is applied to all categories.</p> <p>Bruce Power recommends the technical measures be revised to more clearly align with the category type in accordance with IAEA guidelines.</p>	No change to text. <i>Security Measures for Sealed Sources</i> follows IAEA guidelines and the concept of the graded approach. The technical security measures proposed are aligned with IAEA standards, guidelines and practices.
52	3.2.2	[5 physiciens/physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	<p>Dans un contexte hospitalier où un patient et un accompagnateur peuvent être laissés seuls dans une salle de traitement où se trouve un équipement réglementé de catégorie II, mais surveillés à distance par un système de caméra et d'interphone par le personnel autorisé, il serait bien de clarifier le concept « d'escorte en tout temps ».</p>	<p>Le texte a été modifié pour clarifier le concept d'observation directe dans la section 3.2.2.2 conseils.</p> <p>Les mesures pour contrôler l'accès ont pour objectif de restreindre l'accès au personnel autorisé en leur permettant de désactiver une barrière (mesures de protection) après que leur identité est été vérifiée et leur accès soit autorisé. Les patients et/ou accompagnateurs sont généralement escortés par un membre du personnel hospitalier ou sont sous la surveillance du personnel médical. Dans ce contexte, « l'escorte en tout temps » est de garder l'individu sous observation directe.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
53	3.2.2	[5 physiciens/ physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Notre compréhension des qualifications requises par une personne pour offrir les services d'escorte est-elle bonne ? Nous comprenons qu'il faille que la personne ait réussi une vérification de fiabilité faite par son employeur (le titulaire de permis). Serait-ce plutôt que seules les personnes répondant aux exigences d'un agent de sécurité puissent offrir le service d'escorte ?	Section 3.2.2.2 modifiée. Seul un individu autorisé par l'employeur et ayant suivi une vérification de fiabilité devrait agir en temps qu'escorte, ceci ne se limite pas au agent de sécurité.
54	3.2.2	[5 physiciens/ physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Dans un contexte hospitalier où les ressources humaines du titulaire de permis sont limitées, l'escorte d'un manufacturier faisant une maintenance ou réparation sur son équipement réglementé de catégorie II semble lourde à mettre en application. Une vérification de fiabilité du personnel du manufacturier semble donc avantageuse pour les centres hospitaliers, mais nous ne connaissons pas à l'avance la collaboration des divers manufacturiers à transmettre les informations personnelles, de leurs employés, requises par la vérification de fiabilité.	Section 3.2.2.2 modifiée. Les compagnies manufacturières sont soumises aux mêmes exigences de la CCSN. Lors de maintenance ou de réparation, l'hôpital peut communiquer avec la compagnie afin de s'assurer que ces individus ont été vérifiés comme étant fiable. Si ceci n'est pas vérifiable, le titulaire de permis doit s'assurer que ces individus sont escortés ou sous observation directe par un membre du personnel autorisé.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
55	3.2.2	[5 physiciens/ physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Dans le même contexte de ressources humaines limitées, sachant qu'il peut exister un grand roulement dans les employés de l'entretien ménager œuvrant à l'intérieur d'une installation nucléaire de catégorie II, l'escorte quotidienne du personnel de l'entretien ménager nous semble exigeante. Un employé de l'entretien ménager doit entrer dans une salle de traitement pour effectuer son travail et par le fait même avoir franchi la première barrière physique. Une deuxième barrière physique demeurera cependant toujours interposée entre l'employé et la source radioactive.	Section 3.2.2.2 modifiée. Le programme de vérification de la fiabilité est de s'assurer que les personnes ayant accès sans escorte aux sources à haut risque sont fiables et dignes de confiance et ne présentent pas un risque déraisonnable pour la santé et la sécurité des personnes, ni la sécurité de l'installation. Si le titulaire de permis ne peut pas compléter ses vérifications pour le personnel d'entretien, il doit mettre en place des mesures compensatoires (ex : escorte ou sous observation directe par un individu autorisé).
56	3.2.2.2	Marie-Joëlle Bertrand, physicienne médicale	CSSS de Chicoutimi	Industrie	Alarme locale pour alerter le personnel à proximité (conseil) : ce personnel n'est pas toujours le plus à même d'intervenir et n'est pas forcément le plus informé sur la situation. Leur intervention pourrait, à l'extrême, être dangereuse pour eux et nuire aux agents de sécurité.	Section 3.2.2.2 modifiée. Lors de l'application de ce type de mesure, la formation du personnel est un élément important et une procédure devrait être mise en place pour s'assurer que le personnel à proximité alerte la police ou la sécurité de l'hôpital afin d'intervenir rapidement. Cette section offre des conseils, mais ne donne pas d'indications sur sa mise en œuvre puisque ces indications peuvent varier d'un site à un autre.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
57	3.2.2.2 Guidance for access control	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bullet 3 provides a variety of options for implementing access control measures that range from rudimentary to highly robust. Bullet 4 states that the system should incorporate measures to prevent “pass back” or “tailgating”. This is not aligned with the simple measures identified in bullet 3 (e.g. a manually activated locking device or padlock would not prevent pass back or tailgating). It seems the intent of this section is to provide options based on the category of sealed source in the storage area to enable a graded approach to implementation of security measures.</p> <ul style="list-style-type: none"> • Bruce Power requests confirmation that systems currently installed at high-security sites to detect unauthorized removal of nuclear material on exit meet the intent of the requirements pertaining to alarming at the storage area. • Bruce Power requests confirmation that robust security measures required at high-security sites negates the need for duress signalling to the monitoring room. Bruce Power believes this measure is intended for facilities/environments that don’t have a complex security program already in place. 	<p>Section 3.2.2.2 revised for clarity.</p> <p>Section 3.2.2.2 is guidance for licensees to consider when considering what measures to implement for controlling access to radioactive sources. The CNSC has amended the wording to clarify this area.</p> <p>If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i>. In cases of high-security nuclear sites the expectation is that the licensee would provide the required details as to how they meet all of the applicable requirements.</p>
58	3.2.2.2 Guidance for access control	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power recommends the body of the RD provide clarity regarding requirements for each specific category of sealed source to eliminate the need for interpretation.</p> <p>See also comments for Table B.</p> <p>Confirmation on interpretation requested.</p>	<p>No change to text.</p> <p>These are recommendations as “should” not requirements as “shall”. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
59	3.2.2.2 Guidance for access control	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power is requesting clarification on the following bullets:</p> <p>Bullet 5: What is the rationale for requiring a PIN code for entrance into a source storage room</p> <ul style="list-style-type: none"> - Are requirements only imposed if an electronic access control system is utilized? <p>Bullets 8-11: If a manual access control system is used (ex. pad lock, door lock, cabinet lock) then is an alarming system required?</p>	<p>No change to text.</p> <p>These are recommendations as “should” not requirements as “shall”. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p> <p>The rationale for requiring any level of security measure including the use of a PIN and electronic access control is site specific and subject to discussion between the regulator and affected licensee.</p>
60	3.2.2.2, Guidance for access control	Security division	Ontario Power Generation (OPG)	Industry	<p>Bullet 8 OPG seeks clarity to determine if duress signalling available to all Nuclear Security Officers (NSOs) while in hardened posts at the protected area boundary or while on patrol (by radio) would meet the requirement of signalling. While this duress signalling is not near the storage area, it is effective in directly alerting the Security Monitoring Room and NSOs.</p>	<p>No change to text.</p> <p>These are recommendations as “should” not requirements as “shall”. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p> <p>Duress signaling is site specific and is subject to discussion between the regulator and affected licensee.</p>
61	3.2.2.2, Guidance for access control	Security division	Ontario Power Generation (OPG)	Industry	<p>Bullet 9 OPG seeks clarity to determine if local alarming may be interpreted in a high security site as at the protected area. The protected area perimeter is equipped with alarming (dual detection) fences preventing unauthorized access and with alarming PM7 monitors that prevent unauthorized egress (using door interlocks) of any persons in</p>	<p>No change to text.</p> <p>These are recommendations as “should” not requirements as “shall”. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					possession of source material. While alarming is not in the vicinity of the storage area, it is effective in immediately alerting NSOs for action.	If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i> . In cases of high-security nuclear sites the expectation is that the licensee would provide the required details as to how they meet all of the applicable requirements.
62	3.2.2.2 Guidance for access control	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Re text “<i>The security program should include security measures relating to detection, delay and response to security events (e.g., alarm detection devices, fencing, secured storage containers, immobilization of vehicles and/or trailers, security officers).</i>”</p> <p>This statement is out of place. Section 3.2.2.2 is specific to technical measures for access control and this statement refers to the overall security program.</p> <p>Bruce Power suggests this statement be removed.</p>	Agreed. Text relocated under section 3.1.2.

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63	3.2.3.1	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	In this section, the CNSC is requiring the implementation of measures to detected unauthorized access. It then provides a list of means that could be used, such as a process monitoring system and has as an example, daily or twice-weekly audits of the sources. For a facility such as ourselves, we believe daily or even weekly audits would be excessive, given the nature of our inventory and the checks and balances in place. This list is presented as if it is a “guidance” list, rather than a “requirement” list. It would add more clarity to the document if this list was moved to section 3.2.3.2, which provides the guidance to meeting section 3.2.3.1. Related to this is Section 3.3.1. Clarification as what time interval for “regular inventory checking” is appropriate should be given. This time interval should be a guidance value as each licensee is unique.	Section 3.2.3.1 revised to remove examples of daily or twice-weekly audits. Under section 3.3.6 the licensee is required to establish and maintain a list or inventory of radioactive source(s) under its responsibility. The CNSC applies a performance-based approach to ensure the licensee conducts “regular” verification that the radioactive source(s) is/are present in its authorized location. The frequency and method to do this verification depends on the nature and operations of the licensee, as each licensee is unique.
64	3.2.3.1, Requirements for detection of unauthorized access	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	This section provides a range of options from basic (daily or twice-weekly audits) to robust (detection devices, video alarm assessment). This is the same issue identified for section 3.2.2.2. It seems these options are intended to allow for graded security measures commensurate with the category of source (or threat/risk level). Bruce Power recommends the requirements to be “equipped with an appropriate communication link” not apply to operators using a mobile source inside a high-security site protected area. Section 3.2.3.1 provides a variety of options for detection of unauthorized access,	Section 3.2.3.1 revised to remove examples of daily or twice-weekly audits. No change to the following text - “For mobile sources in use, continuous visual surveillance by operator personnel equipped with an appropriate communication link” is a tool to communicate with offsite response in case of an incident and may be used for both safety and security. Under section 3.3.6 the licensee is required to establish and maintain a list or inventory of radioactive source(s) under its responsibility. The CNSC

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					<p>including records, seals, daily or twice-weekly audits. It then states “IF” an intrusion detection system is used, it must do certain things. This leads the reader to believe there are options and an alarm system is but one of them</p> <p>Bruce Power recommends the body of the RD provide clarity regarding requirements for each specific category of sealed source to eliminate the need for interpretation.</p> <p>Bruce Power suggests this section identify an exemption for high-security sites.</p> <p>See comment at section 3.2.3.2.</p>	<p>applies a performance based approach to ensure the licensee conduct “regular” verification that the radioactive source(s) is present at its authorized location. The frequency and method to do this verification depends on the nature and operations of the licensee, as each licensee is unique.</p> <p>There are no exemptions for high-security sites. If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i>. In cases of high-security nuclear sites, the expectation is that the licensee would provide the required details as to how they meet all of the applicable the requirements.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
65	3.2.3.1	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Regarding text “The monitoring station shall be certified by a body accredited by the Standards Council of Canada, or other certification body deemed acceptable by the CNSC staff (UL/ULC certification implied and stated in Guidance section)”</p> <p>This requirement is an unreasonable and unnecessary burden to licensees who perform in-house monitoring directly or through their landlord. It will result in reconstruction (possibly involving relocation) of Security Control Rooms in order to meet some of the requirements.</p> <p>Nordion agrees that this requirement may be reasonable for licensees who outsource their alarm monitoring to companies outside the inspection reach of CNSC inspectors. However, many larger licensees have inspectable in-house security monitoring.</p> <p>We suggest that a more reasonable and effective approach would be for CNSC to include inspection of Security Control Rooms against a list of good practices, such as power redundancy, etc.</p>	<p>Agreed.</p> <p>Text removed from the requirement section (section 3.2.3.1) and clarification added in guidance section (section 3.2.3.2) for the use of third party alarm monitoring centers.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
66	3.2.3.2, Guidance for detection of unauthorized access	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Further from comment related to section 3.2.3.1.</p> <p>This section provides “guidance” to further describe how the section above can be implemented. This guidance only provides input on an alarm system which leads the reader to believe that an alarm system is the only option as it does not provide guidance on any other option.</p> <p>Bruce Power requests guidance pertaining to the other options for detection of unauthorized access as described in section 3.2.3.1.</p> <p>NOTE: this issue is similar to other issues raised regarding describing the graded approach to security.</p>	<p>No change to text. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p>
67	3.2.4.2	Dave Griffith	[not provided]		<p>I would suggest referencing an established padlock standard such as ES12320 instead of using vague phrases such as "be of good quality". ES12320 has six levels of security and I would suggest mandating a minimum security level based on the risks presented by the sealed source. The manufacturers of locks that meet these standards already have key systems that prevent unauthorized copying which is also necessary in a good security program.</p>	<p>Comments noted. Section 3.2.4.2 was amended to replace “good” with “high” and to add “high-security lock series”.</p> <p><i>Security Measures for Sealed Sources</i> applies the concept of the graded approach. It is up to the licensee to use a high-security lock or high-security padlock that is commensurate with the category of their source. CNSC’s approach is performance-based for this requirement.</p> <p>CNSC staff is available to provide additional guidance in this area if required.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
68	3.2.5	[5 physiciens/ physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	En milieu hospitalier, une source d'iridium 192 de catégorie 3 située dans un appareil réglementé de catégorie II est considérée comme ayant deux barrières physiques si l'appareil est enchaîné, cadénassé (1 ^{re} barrière) et contenu dans une enceinte fermée et barrée (2 ^e barrière). Qu'en sera-t-il du contenant de transport dans lequel se trouvera une seconde source d'Ir 192 utilisée pour le remplacement périodique de la source contenue dans l'appareil réglementé ? Ce contenant de transport pourrait-il être derrière une seule barrière physique étant donné qu'il ne peut être enchaîné et cadénassé ? Doit-on comprendre qu'une deuxième barrière physique pour le contenant de transport entreposé sera exigée ?	Aucun changement de texte. Dans le cas mentionné, la réponse est affirmative, il doit aussi y avoir deux barrières physiques pour l'endroit où la seconde source (source de rechange) est entreposée. Le contenant de transport n'est pas considéré comme une barrière physique si celui-ci n'est pas sécurisé (ex : enchaîné, cadénassé) <u>et</u> entreposée dans une enceinte fermée et verrouillée.
69	3.2.5.1	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	Section 3.2.5.1 discusses physical barriers. Section 3.2.5.1.2 goes on to describe the requirements for an enclosure to be secure. A requirement listed is that all windows providing access to interior areas of concern be equipped with bars, metal grills, or security films. However, we believe that windows fitted with break sensors that detect a window breakage should also be considered as providing adequate security, when all physical barriers are reviewed. For example, Best Theratronics uses three separate physical barriers. The outermost being the exterior wall with windows that are equipped with break sensors that trigger an alarm in the 24 hr security office. Since there are an additional 2 physical barriers, the window break sensor provide sufficient front line security.	No change to text. The example concerning windows fitted with glass breakers sensors would meet the requirement of section 3.2.3. Please note that glass breaker sensors are detection measures and are not considered as a physical security barrier.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
70	3.2.5.1 and 4.2.1	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Regarding the text “For a container to be considered secure, it must be:....fitted with a key or combination padlock or similar lock, that can resist surreptitious or forced attack using handheld tools”</p> <p>This section does not take large, >500kg containers into consideration as it does in 4.2.1 of the draft. The physical mass of the containers and their lids, the special handling tools necessary, requirement to open in a pool, etc. make these containers inherently secure. 3.2.5.1 needs to include this recognition as it does in 4.2.1. These containers are certified for use by states around the world and physical modification of them to include locking hardware is not feasible.</p> <p>As noted above, this section does not contain language accepting the physical storage of sealed sources in pools and therefore requires revision.</p>	<p>Comment noted and text added in section 3.2.5.1 regarding “sealed sources in pools” and in section 3.2.5.1.1 for “containers over 500 kg”.</p> <p>During transport, the large transport containers over 500 kg are secured with several bolts and the container is chained and locked to the deck of the transport vehicles which is considered equivalent.</p>
71	3.2.5.1.1	Michael Dion	National Research Council of Canada (NRC)	Government	<p>Section 3.2.5.1.1 gives the requirements for these secure containers. There is a deficiency in this list – please add ‘secure irradiators’ to the list of secure containers. Also please add “securely bolted together” to the section on “Requirements for secure containers”, under the bullet that includes: “fitted with a key or combination lock...”</p> <p>We use an irradiator that houses a Category 2 ¹³⁷Cs source. This irradiator can only be opened through removing several bolts and through the use of a hoist. This irradiator is significantly more secure than a file cabinet, metal box or wire cage. Removing many</p>	<p>No change to text.</p> <p>An irradiator alone is not considered to be a secure enclosure. Shielding and fixed units containing radioactive sources may provide some level of protection. This is site specific and is subject to discussion between the regulator and the licensee.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					bolts on an irradiator such as this one supplies sufficient time to provide delay sufficient to enable response personnel to intervene as required.	
72	3.2.5.1.1	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>The definition of a secure container is very narrow and does not permit a comparable (or higher) level of security using a different configuration or method.</p> <p>At a mining, milling or uranium processing facility, it is often the standard practice to store sources inside of a secure room with a locked door, which would seem to be comparable to or better than a wire mesh cage. It is recommended that section 3.2.5.1.1 be reworded to be somewhat more general and allow for comparable means of securing these sources.</p>	Comment noted. New text has been added to Section 3.2.5.1.1 to recognize containers or structures with a comparable level of security.
73	3.2.5.1, Requirements for physical barriers	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power requires clarification on Paragraph 2. This requirement seems excessive and is not consistent with the IAEA “Security of Radioactive Sources” document requirements. Although Bruce Power meets these requirements, the IAEA suggests that only Category 1 storage areas have two technical (“physical”) barriers and Category 3&4 only require one technical barrier.</p> <p>Bruce Power recommends the requirements to be “equipped with an appropriate communication link” not apply to operators using a mobile source inside a high-security site protected area.</p> <p>Bruce Power requests clarification.</p>	<p>No change to text. The CNSC has decided to include category 3 sources with category 1 and 2 with respect to “perimeter and physical barrier”. IAEA security documents include provisions for member states to set different or enhanced levels of security as they deem necessary based on conditions such as the following:</p> <p>“The regulatory body may wish to consider the attractiveness of sources in determining the security level assigned to a source and the security measures applied to that security level.”</p> <p>“The regulatory body may wish to</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					Bruce Power suggests this section identify an exemption for high-security sites.	<p>consider mobility, portability and location when assigning a security level to a source or may wish to consider additional measures within the assigned security level to compensate for these conditions.”</p> <p>No exemption will be provided for a high-security nuclear site within <i>Security Measures for Sealed Sources</i>. As stated previously, in cases of high-security nuclear sites the expectation is that the licensee would provide the required details as to how they meet all of the applicable requirements (e.g., inventory control/verification).</p>
74	3.2.5.1.2, Requirements for secure enclosures	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power requires clarification. Does this requirement apply to all category sources or to just Category 1, 2, 3? This requirement seems excessive for Category 3 sources and below.</p> <p>Bruce Power requires clarification on the door material requirement. This requirement is excessive for licensed storage/use locations that are located within nuclear generating stations as PROL security requirements apply. How does this requirement apply to licensees that have to comply with the Class I Nuclear Facilities and Nuclear Security requirements?</p> <p>Bruce Power requests clarification.</p>	<p>No change to text.</p> <p>This requirement applies to category 1, 2 and 3 sources and provides best practice for category 4 and 5.</p> <p>If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i>.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
75	3.2.5.2, Guidance for physical barriers	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power requires clarification on this section of the document. Are multiple barriers required for all categories of sources or only Category 1, 2, 3? If it excludes lower category sources, then the document should state that.</p> <p>Bruce Power recommends the body of the RD provide clarity regarding requirements for each specific category of sealed source to eliminate the need for interpretation.</p>	<p>Table B has been revised.</p> <p>This requirement applies to category 1, 2 and 3 sources and provides best practice for category 4 and 5.</p> <p>Appendix C has been added to provide clarification regarding the security requirement for each specific category of sealed source and use type to eliminate the need for interpretation.</p>
76	3.2.5.2.1, Guidance for secure containers	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power requests confirmation that security requirements for protected area perimeter at high-security sites meets the intent of an alarm system to detect unauthorized entry or access.</p> <p>Confirmation on interpretation requested.</p>	<p>No change. This is a general comment on the implementation of <i>Security Measures for Sealed Sources</i> and not on the content of the document.</p>
77	3.2.5.2.1	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>The guidance for a secure container, e.g., be resistant to an attack by a sledgehammer or drill, does not seem commensurate with the type of containers specified in section 3.2.5.1.1, e.g., file cabinets. Further, this guidance seems more in line with requirements necessary for category 1, 2, and 3 sources rather than category 4 and 5.</p> <p>It is recommended that these requirements be verified to ensure they are appropriate.</p>	<p>Section 3.2.5.1.1 has been amended, and in section 3.2.5.2.1 the reference to a sledgehammer has been removed.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
78	3.2.5.2.1	Security division	Ontario Power Generation (OPG)	Industry	Last bullet point: Given the significant security systems utilized at protected area perimeters of High Security sites, recommend rewording to indicate storage location and/or container and/or facility perimeter should be equipped with an alarm system to detect unauthorized entry or access.	No change to text. This section does not apply to facility perimeters. If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant), some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i> .
79	3.2.5.2.2, Guidance for secure enclosures	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Bruce Power requires clarification on this section of the document: Section 3.2.5.2.2. Is there an international guidance document that can be referenced instead of placing the requirements into this document? Bruce Power recommends the RD reference an international standard rather than describe detailed requirements.	No change to text. This section provides guidance when using a storage location or container. The application may vary because of the graded approach and location of licensed site and must be assessed on a site specific basis. Within Canada there are a number of licensees with high-risk radioactive sources that are located in a wide variety of locations including some that are very remote and isolated.
80	3.2.6.1, Requirements for alarm response protocol	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Bruce Power requires clarification on this section. Section 3.2.3.1 implies that an alarm detection system is an option among the list that is provided as examples. This section insinuates that an alarm is required and a response plan for that alarm is mandatory. Bruce Power recommends the RD be revised to be more clear regarding what is required.	No change to text. Section 3.2.3.1 refers to intrusion detection while 3.2.6.1 refers to response protocols to an “alarm” as a result using any acceptable form of intrusion detection.

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81	3.2.6.1	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>This section contains a requirement to notify the local police force and make arrangements with offsite emergency responders. Many of our facilities are located in very remote areas that have no local police or emergency responders. This requirement is understandable in urban settings but not universally applicable.</p> <p>It is recommended that the wording be modified to include the term “as applicable” in reference to local responders.</p>	<p>No change to text – Local Law Enforcement Agency (LLEA) must be given the opportunity for familiarization with the facility and must be summoned as a result of an unauthorized entry as it is a criminal offence; regardless of the LLEA office location.</p> <p>The requirement for making arrangements with the LLEA ensures that the LLEA can respond to an incident at the licensee’s facility. For temporary job site or remote areas, the licensees need to know how to request assistance from the LLEA.</p>
82	3.2.6.2, Guidance for alarm response protocol	Security division	Ontario Power Generation (OPG)	Industry	<p>Last paragraph: Use of MOU for support arrangements in the local community by Police of Jurisdiction that have a duty to respond seems excessive. Recommend removal of MOU requirement.</p>	<p>No change to text. This is a suggestion under guidance so a formal MOU is optional, not a requirement.</p>
83	3.3	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>It is not clear if this section applies to only sources that are in storage or includes sources that are in use.</p> <p>All other aspects of this procedure have been related to storage or transport of the sources. Section 3.1 specifically states that security measures apply to source storage. Section 3.2 appears to discuss requirements in relation to source storage locations as well. It is recommended that section 3.3 explicitly state that these requirements apply only to the source storage locations or if sources in use are included.</p>	<p>Section 1.1 and the introduction were amended to include “entire lifecycle”, to reflect this comment. Security measures apply to the use, storage and transport of nuclear substances.</p>

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84	3.3	Jeanne Miller	Shlumberger Canada Limited	Industry	<p>Personal Trustworthiness and Reliability: I have reviewed the additional documents as referenced from this section relevant to trustworthiness and reliability. It is not clear to me what level of reliability (enhanced reliability/reliability) is required. Furthermore, it is not clear as to what activities or convictions might disqualify an individual. I appreciate that the CNSC prefers to be non-prescriptive in its policies; however, we must develop an internal standard and apply it consistently to avoid discrimination/favoritism allegations in our hiring practices. This process will be complex and expensive, and I do not want to be advised by CNSC Security inspectors after implementing this that it is insufficient or does not meet the intent of the Security Requirements. NRCan/ERD will be implementing reliability check requirements for the handling of explosive material; their criteria is much clearer, and I plan on using that for personnel with access to either radioactive material and/or explosives. BATFE and NRC in the US has also established very specific criteria for the screening of personnel with access to this material.</p>	<p>Section 3.3.3 was amended and new appendix B was added to include alternatives to criminal record check (ex: NEXUS, FAST).</p> <p>New text is provided in requirement section 3.3.3 to recognize alternatives to criminal record check.</p> <p>New text added in guidance section to provide additional guidelines for screening of personnel with access to high risk radioactive material.</p> <p>A new process chart explaining the steps for assessing a person's criminal record has been added in appendix B for additional guidance.</p>
85	3.3.2.1, Requirements for a site security plan	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>The site security plan should be reviewed annually and updated only as required based on changes to the physical or operational security measures.</p> <p>Bruce Power recommends submissions to the CNSC are only required when changes are made to the site security plan.</p>	<p>Agreed. In section 3.3.1, the text has been changed from: "The site security plan shall be reviewed and updated by the licensee at least once a year, to address any changes within the licensed facility." to:</p> <p>"The site security plan shall be reviewed by the licensee at least</p>

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						once a year and updated based on changes to the physical or operational security measures or to address any changes within the licensed facility.”
86	3.3.2.1, Requirements for a site security plan	Security division	Ontario Power Generation (OPG)	Industry	Recommend annual FPS review , but actual update submission to CNSC is only when important changes are completed at the facility.	Agreed. See response to comment #85.
87	3.3.3	Kari Toews, Program Manager, Occupational Safety	Cameco Corporation	Industry	<p>The use of sources, particularly nuclear density gauges, is already restricted to only those who have appropriate training courses. It appears to state that a separate training program is required, however, it seems reasonable to have the option to incorporate these requirements into pre-existing training if this is appropriate.</p> <p>It is recommended that the option be available to incorporate the Security Awareness Program aspects into other existing training as applicable.</p>	<p>Comment noted but no change to text. Security awareness training is a requirement for all workers at the site of the licensed activity. The licensee has the flexibility to decide how they wish to incorporate their Security Awareness under their current training program. Section 3.3.2 provides some guidance.</p> <p>Refer to Appendix A.</p>
88	3.3.3.1	[5 physiciens/physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Le Tableau B réfère à « tous les travailleurs » tandis que cette section réfère à « toutes les personnes ayant un accès autorisé ». Nous comprenons que la terminologie du tableau est générale et ne vise pas tous les travailleurs du titulaire de permis, mais uniquement ceux ayant un accès autorisé. Une précision apportée au tableau pourrait être nécessaire.	Tableau B modifié.

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89	3.3.3.1	Marie-Joëlle Bertrand, physicienne médicale	CSSS de Chicoutimi	Industrie	Pour le HDR, il est facile de créer une situation où le projecteur est derrière la deuxième barrière (projecteur rangé dans un coffre ou un grillage barré) et où il n'est nécessaire d'ouvrir que la première barrière (porte de la salle de traitement pour donner accès au personnel d'entretien (par exemple). Dans un tel cas, l'information transmise sur la base d'un « besoin de savoir » (tableau B) semble moindre que ce que la présente section suggère...	Dans le tableau B le « besoin de savoir » s'applique à l'information réglementée.
90	3.3.4	[5 physiciens/physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Il serait bien de préciser qu'en présence d'un casier judiciaire, l'examen de l'octroi de la cote de sécurité devrait tenir compte des fonctions et tâches à accomplir, la nature et la fréquence du délit ainsi que la période écoulée depuis que celui-ci a eu lieu.	Nouveau texte dans la section 3.3.3 et annexe B Plus de détails et d'information ont été ajoutés à section conseil 3.3.3 pour aider les titulaires de permis. Un nouveau diagramme a été ajouté en annexe B pour expliquer les étapes à suivre lors de la vérification de casiers judiciaires.
91	3.3.4	[5 physiciens/physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	Il serait avantageux d'indiquer clairement, qui a la responsabilité de déterminer la probabilité qu'une personne ayant un casier judiciaire puisse commettre une infraction semblable et l'effet que cela pourrait avoir sur la fiabilité dans l'emploi.	Nouveau texte dans la section 3.3.3 et annexe B Plus de détails et d'information ont été ajoutés à section conseil 3.3.3 pour aider les titulaires de permis. Un nouveau diagramme a été ajouté en annexe B pour expliquer les étapes à suivre lors de la vérification de casiers judiciaires.

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92	3.3.4.1	Thomas Levey	Acuren Group Inc.	Industry	<p>The process should be much simpler. There should be some exceptions if a person is a Canadian, has a resume that can be verified, two references to call on past performance, and has a NRCan photo complete with EDO certificate. Or a valid Canadian passport. If they are provided with these, this should meet the verification of trustworthiness.</p> <p>If the person is totally unknown and has none of the above, then it makes sense that a criminal records check shall be done.</p>	<p>Comment noted and additional details and information has been added to section 3.3.3.</p> <p>A new process chart explaining the steps for assessing a person's criminal record has been added in appendix B for additional guidance.</p>
93	3.3.4.1	Michael Dion	National Research Council of Canada (NRC)	Government	<p>Is it within the purview of the CNSC to prescribe personnel background checks? If not, then in Table B, pp. 7-8, delete the row for "Personal trustworthiness or background checks" and all related sections. If this authority can be verified, then change Table B, pp. 7-8, so that current employees in a facility with 5 or more years of experience are grandfathered and not required to obtain a new criminal records name check or reference, education and employment verification. Change section 3.3.4.1, bullets a), b), and c) to reflect this.</p> <p>If the CNSC is not exceeding its authority with this requirement, then in section 3.3.4.1, for bullets a) and b), grandfather all personnel who have been employed for 5 or more years. That is reasonable, since appropriate checks were carried out during the initial hiring process but the documentation may not be easily retrievable. For bullet c), change to, "... unless the person has been employed for more than 5 years at the facility." 10 years is arbitrary and unnecessary.</p>	<p>Comment noted, section 3.3.3 was amended and new appendix B was added. Text changed from "10" to "5" years.</p> <p>The Commission has explicit statutory authority to make regulations "respecting the qualifications for, and the training and examination of ...persons employed in a nuclear facility or other place where a nuclear substance or prescribed equipment is produced, used, possessed, packaged, transported, stored or disposed of... (para 44(1)(k)). Furthermore, the NSCA requires the CNSC to implement Canada's international obligations, and the proposed measures to ensure trustworthiness and reliability reflect the requirements laid out in the IAEA's <i>Code of Conduct on the Safety and Security of Radioactive Sources</i> (20(e)(viii)).</p> <p>Section 12(1)(c) of the <i>General Nuclear</i></p>

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						<p><i>Safety and Control Regulations</i> provides the regulatory basis to establish personal trustworthiness and reliability checks.</p> <p>Requirement for trustworthiness will be by license condition and general guidance is provided in section 3.3.3.</p> <p>All employees granted unescorted access must have a determination of Trustworthiness and Reliability. The level of investigation needed for employees who have been employed over five years is not the same as that required for new or recently hired individuals. A CNRC is required every five year but the reference, education and employment checks would not be required for existing staff only for new hires. Section 3.3.3 was amended to include alternatives to CRNC.</p> <p>Also, a new process chart explaining the steps for assessing a person's criminal record has been added in appendix B for additional guidance.</p>
94	3.3.4.1	Alan Brady, Director	TISI Canada Inc.	Industry	Request clarification or additional information on the requirements for background checks. It appears that verification of trustworthiness, honesty and reliability can only be made by the use of a background check using the CPIC database. If this remains to be the case, can a company accept a background check that was performed as part of another program or by another company? Provided the CPIC was used for the verification and documented	<p>Additional details and information have been added to section 3.3.3 to include alternatives to criminal record check (ex: NEXUS, FAST).</p> <p>A new process chart explaining the steps for assessing a person's criminal record has been added in appendix B for additional guidance.</p>

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					evidence was available (Copies of assessment or background check report)? I;E Nexus, Controlled Goods Program, ITAR, a check performed by another company. The flexibility would allow licensees to mitigate the cost of this requirement if possible. Currently a background check to CPIC can cost up to \$60 U.S per person.	
95	General	LiHeng Liang, Clinical Physicist	Hôpital general juif / Jewish General Hospital	Industry	<p>Some security measures can be implemented by our efforts supported by the hospital, but a few measures are out off our control (transportation of sealed source) and are not practical (criminal record name check for staff, constructors, and vehicle driver).</p> <p>For staff background checks, this causes even more shortage of staff. Those background checks may result in their name on the black name list of the security departments of Canada and US, meaning that this may result in unpredicted problems during travel in Canada and in the US. Due to this reason, current staff / potential new staff may refuse to work as a radiation technologist to provide services on treating cancer patient with radiation therapy.</p> <p>Suggestion: The CNSC should work with therapeutic machine manufacturers in order to reach an agreement that they follow all CNSC's regulations and provide the trustworthiness and reliability document for their employee as constructor for us.</p>	<p>Additional details and information have been added to section 3.3.3 to include an alternative to criminal record check (ex: NEXUS, FAST).</p> <p>The manufacturers of radioactive sources are also licensed by CNSC and will have to meet the same obligations.</p> <p>A new process chart explaining the steps for assessing a person's criminal record has been added in appendix B for additional guidance.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
96	3.3.5.2	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	The draft document recommends that prescribed information “not be stored on an open or shared network without proper protection”. Clarification should be given as to what the CNSC regards as proper protection. The requirements should also not be too onerous as many organization are moving to network storage. For instance, many of our engineering drawings related to device delays initiatives would be considered sensitive documents. However, it is not feasible to only store these on hard medium or paper format.	Comment noted, but no change to text. The intent of the requirement (section 3.3.4) is to ensure that prescribed information is protected accordingly and accessible to the individual(s) with the need to know avoiding unintentional disclosure. The guidance (section 3.3.4) provides examples of reasonable protection measures that should be implemented to protect sensitive and/or prescribed information stored on a shared network (ex; password, encryption, access rights restrictions).
97	3.3.5.2	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	Transportation and transmission of prescribed information requires that the top right-hand corner of each page of the document be labeled with the words, ” PRESCRIBED INFORMATION ”. For such information entering the United States, the required wording is “ Safeguarded Information ”. As such, any prescribed information entering the US from Canada would require both wordings. This becomes tedious to implement. We suggest that the wording, “ Safeguarded Information ” be an acceptable alternative to ” PRESCRIBED INFORMATION ”.	No change to the wording “ PRESCRIBED INFORMATION ”; for clarity, removed the wording “or SECURITY PROTECTED”. Canadian licensees must provide protection measures to control access to “prescribed information” defined in the <i>General Nuclear Safety and Control Regulations</i> , section 21. Safeguarded information is applicable for US licensees under the NRC regulations; therefore, it is not an acceptable alternative.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
98	3.3.6.1	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Regarding the text “Requirements to conduct inventory checks for detection purposes, to verify that the sources are security and have not been altered or subject to illegal access or unauthorized removal. Must comply with 36(1)(a) of the Nuclear Substances and Radiation Devices Regulations.”</p> <p>This requirement will impose operational challenges to licensees that manufacture, possess and dispose of many (1000’s) of sources. Verification requires the use of special facilities and equipment that may not be available due to location, manufacturing/maintenance schedules or performance of other regulatory commitments. Verification will be costly and require a large degree of time. Other existing and new security requirements and controls account for security during storage. It is not clear why routine checks would be required.</p> <p>As written, this section requires clarification of what is intended by “regular inventory checks”, ex. Guidelines for how often and what information (quantity, identification etc).</p>	<p>No change to text.</p> <p>The licensee is required to establish and maintain a list or inventory of radioactive source(s) under its responsibility. CNSC uses a performance based approach to ensure the licensee conducts “regular” verification that the radioactive source(s) is/are present in its authorized location. The frequency and method to do this verification depends on the nature and operations of the licensee.</p> <p>If a licensee wishes, they may propose an alternative method of doing an inventory check. CNSC staff will evaluate the proposed procedure to ensure it provides the necessary security.</p> <p>Section 36(1)(a) of the <i>Nuclear Substances and Radiation Devices Regulations</i> provides clear indications regarding the information and records to be kept and retained in respect to any nuclear substance in the licensee’s possession.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
99	3.3.6.2	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Regarding the text « Inventory control guidance: ...Such measures could include physical checks that the source is in place.....” and “process for inventory control should be in place, to ensure a robust verification process.”</p> <p>Regular inventory checks are verified during use of the material as sources are manufactured, stored and transferred. This requirement is problematic for longer term storage of a large number of sources in secure environments. Other existing and new security requirements and controls account for security during storage. Suggest that regular verification of secure systems (larger containers, tamper seals, CCTV) is adequate to ensure security during storage.</p>	<p>No change to text.</p> <p>See response to comment #98.</p>
100	4	Marie-Joëlle Bertrand, physicienne médicale	CSSS de Chicoutimi	Industrie	<p>Toute la section 4 (transport), plusieurs mesures sont très sévères et on met sur le titulaire de permis qui n’a pas un pouvoir législatif sur les compagnies de transport l’odieuse de leur faire respecter la loi. Il faudrait plutôt légiférer les compagnies de transport...</p>	<p>Il incombe au titulaire de permis de s’assurer qu’il y ait en place un processus pour la réception de matières radioactives et le contrôle de l’inventaire afin de s’assurer que les matières ne soient pas perdues ou égarées. Le titulaire de permis a aussi la responsabilité d’utiliser les services de transporteurs privés qui répondent aux exigences du document <i>Security Measures for Sealed Sources</i>.</p> <p>Bien que la majeure partie des activités de transport ne requière pas de permis, ces activités sont néanmoins assujetties aux exigences du <i>Règlement sur l’emballage et le transport des substances nucléaires</i>, tout comme les transporteurs. Une des exigences</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
						réglementaires est que les transporteurs doivent transporter les matières conformément aux instructions de l'expéditeur. Les transporteurs ont aussi l'obligation d'élaborer et de mettre en œuvre un programme de radioprotection et de mettre en place des procédures de travail pour assurer la conformité au Règlement.
101	4	Security division	Ontario Power Generation (OPG)	Industry	n/a - OPG contracts with qualified vendors to conduct all transport of sealed sources stated in Table A.	No comments.
102	4	NWMD	Ontario Power Generation (OPG)	Industry	Use of the word "vehicle" is somewhat ambiguous. In section 4.1.1, does the requirement apply to the tractor, the trailer or both? Suggestion: Define vehicle consistent with IAEA TS-R-1, paragraph 247.	The term "Vehicle" has been added in Glossary, using the definition from the <i>Nuclear Safety and Control Act</i> , with additional text from IAEA TS-R-1 to clarify the requested information.
103	4	LiHeng Liang, Clinical Physicist	Hôpital général juif / Jewish General Hospital	Industry	Some security measures can be implemented by our efforts supported by the hospital, but a few measures are out of our control (transportation of sealed source) and are not practical (criminal record name check for staff, constructors, and vehicle driver). As mentioned in the draft document, most source carrier are not licensed by the CNSC, therefore, they will not enforce this document during their transportation of radioactive materials (class 7) and they will not follow our instruction as well. So we can not control any transportation procedure for transportation of radioactive materials. Based on my experiences on importing and	No change – until such time as commercial carriers are subject to CNSC licensing the licensee is responsible for the security when using commercial carriers until the nuclear substances reaches its licensed destination. The licensee is responsible for the security of licensed radioactive sources including when using commercial carriers until the source reaches its destination. Transport activities are regulated by both Transport Canada TDG regulations

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					<p>exporting Ir-192 source from and to the US, we can not control US Customs to open a secured package by cutting a security seal; source carrier delivery a radioactive materials based on building to building basis, and without identifying dangerous goods with regular packages, meaning that they treat class 7 packages (at least) as regular packages to delivery to a hospital receiving department only, not to final users.</p> <p>Suggestion: The CNSC should work with Transportation Canada and Transportation of US to achieve an agreement enforcing source carrier to follow the CNSC regulations.</p>	<p>and CNSC <i>Packaging and Transport of Nuclear Substances Regulations</i>. Under the CNSC <i>Packaging and Transport of Nuclear Substances Regulations</i>, carriers shall transport the material in accordance with the consignor's instructions. They shall also implement and maintain a radiation protection program as well as work procedures to ensure compliance with the regulation.</p> <p>CNSC staff is continuing to work with Transport Canada to identify any potential security gaps and develop agreements to enforce regulations.</p>
104	4.1.1 Requirements for vehicle security	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	<p>Bruce Power requests clarification on Section 4. Are there any requirements for sources that are shipped by other means of transport (via air, sea, rail, etc)?</p> <p>Bruce Power recommends the RD be updated to include requirements for all modes of transport.</p>	<p>No change to text. This document covers transportation by land only.</p> <p>The International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO) and other intergovernmental organizations such as the International Carriage by Rail –have taken similar steps to provide improved security in the transport of dangerous goods carried by sea, air and rail.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
105	4.1.1	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Regarding the text “Requirement for anti-theft devices on Cat 1,2 &3 transports, including vehicle disabling device and intrusion detection”</p> <p>Please ensure that licensees are afforded a reasonable implementation schedule in order for them to work with their contracted carriers to make required changes.</p>	No change to text. Comment noted and the CNSC will provide sufficient time to the licensees during the implementation period.
106	4.2.1	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>[See also comment #nn, about section 3.2.5.1]</p> <p>Regarding the text “For a container to be considered secure, it must be:...fitted with a key or combination padlock or similar lock, that can resist surreptitious or forced attack using handheld tools”</p> <p>In this section it states that “packages over 500 kg are considered secure” but then goes on to locking requirements above.</p> <p>Clarification in the wording of the secure container requirements is required. In this section it states that “packages over 500 kg are considered secure” but then it goes on to state the requirements needed to be considered a secure container, including locking requirements, etc. It would be clearer if the wording about packages over 500 kg was simply noted in the a, b, c, d requirement list as item a, for example.</p> <p>Alternatively, perhaps the section could be clarified by stating the requirements to be considered secure for containers greater than 500kg and then for containers less than 500kg.</p>	<p>Text added in section 3.2.5 regarding “containers over 500 kg”.</p> <p>During transport, the large transport containers over 500 kg are secured with several bolts and the container is chained and locked to the deck of the transport vehicles which is considered equivalent.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
107	4.2.1	NWMD	Ontario Power Generation (OPG)	Industry	<p>A relatively low-mass container should likely be fixed to the vehicle, to prevent it from being carried off easily. A vehicle could be broken into and a relatively light container stolen before the operator of the vehicle could respond to the alarm.</p> <p>Suggestion: Determine a mass (100 kg?) under which the container must be secured to the vehicle.</p>	Text added in section 3.2.5 regarding “containers over 500 kg” – see response to comment #106.
108	4.2.1	Alan Brady, Director	TISI Canada Inc.	Industry	<p>Request a clarification of the CNSC expectation for licensees responsibilities when using courier services. Specifically for category 2 sources, section 4.2.1 page 22 speaks of a verification process. Verifications also include background screening of carrier personnel.</p> <p>It is a normal and acceptable industry practice for a company to verify client and regulatory compliance of its suppliers and subcontractors. However, in the case of couriers or third party carriers, the end result may be meaningless if these (Couriers/carriers), are not licensed or regulated the same way. It MAY be possible that carriers/couriers may simply choose not to service this industry. It may also prove to be difficult to verify or for the couriers to implement unless they put an id system in place or are willing to spend that extra expense to service our industry.</p> <p>Our industry would be reluctant to be responsible for sources and devices once out of our control. Security regulations must apply and be consistent throughout the supply</p>	<p>No change– Commercial carriers are subject to CNSC licensing the licensee is responsible for the security when using commercial carriers until the nuclear substances reaches its licensed destination. The licensee should implement a verification process as part of the procurement/purchasing.</p> <p>Transport activities are regulated by both Transport Canada TDG regulations and CNSC <i>Packaging and Transport of Nuclear Substances Regulations</i>. Carriers are regulated under PTNS Regulations and are required to develop and implement a radiation protection program as well as work procedures to ensure compliance with the regulation and transport the material in accordance with the consignors instructions.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					<p>chain in order to maintain control of sources and devices. There are already requirements in place for transfer and direct observation of devices and sources. However, transport within and unregulated industry appears to be a weak link in the chain.</p> <p>If the expectation is for a licensee to simply implement a documented verification process as part of the procurement/purchasing of courier/carrier services, then this would be an acceptable expectation.</p>	
109	4.2.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Is the shipping document describing the security measures for sealed source in addition to the current shipping document required ?	<p>The current regulations require that every consignor provide in the transport document a statement regarding actions, if any, to be taken by the carrier.</p> <p>Section 4.2.1 was amended to state the following: “The shipping documents shall include a statement regarding actions, if any, to be taken by the carrier which contain a description of security measures for sealed sources. Where more than one category of sources is included in the consignment, the applicable measures shall be based on the more restrictive category.”</p>
110	4.2.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Please clarify “more than one radionuclide” does this mean a single sealed source containing multiple nuclides, or if there are multiple radionuclide per consignment (i.e. multiple packages in one shipment?)	Multiple sources per consignment. Text has been revised for clarity.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
111	4.2.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	This section is vague as to what the paperwork should specify. It must be more detailed and should be cross-referenced in the Packaging and Transport of Nuclear Substances Regulations. Perhaps there should be a section for “Transport documents” if security measures document is mandatory.	The transport shipping document is controlled under the <i>Packaging and Transport of Nuclear Substances Regulations</i> and therefore outside the control of this document. Section 4.2.1 revised; see response to comment #109.
112	4.2.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Section 4.2.1: “the consignor, shall contract a carrier with a proven record for the safety and security of dangerous goods”. If the shipment is not exclusive use, more than one carrier can be used without the knowledge of the consignor or consignee. How is this expected to be handled? This needs to be more closely aligned with the P&TNSR.	No change to text. The licensee is responsible to ensure that they contract carriers that meet the applicable requirements. If multiple carriers are used, the licensee shall ensure that the authorized carrier is capable of providing physical security measures for sealed sources while they are in transport or being stored during transportation.
113	4.2.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Section 4.2.1: Is there a certification a consignor can use to ensure carriers have a proven record for safety and security?	No change to text. The CNSC is not aware of any certification of this type.
114	4.2.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Bruce Power recommends Para. 2 be reworded to align with the wording in the P&TNSR For example: “ As required by the <i>Packaging and Transport of Nuclear Substances Regulations</i> , the consignor shall provide the carrier with the appropriate transport documents relating to the shipment. In addition to the transport documents, the consignor shall include the corresponding description of security measures for sealed sources....”	Section 4.2.1 revised; see response to comment #109.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
115	4.2.1	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	The document lists a requirement that secure containers “shall be equipped with a key, combination padlock or similar locking device that is resistant to an attack using handheld tools”. We believe this requirement is excessive in many instances. In particular, all of Best Theratronics’ containers are Type B(U) containers used to transport Cat 1 or 2 quantities of Co60 or Cs137. The containers are significant in weight and cannot be opened using standard handheld tools. Also, the weight of the lids and other container components are such that they already provide protection against theft of the sources. Finally, this requirement is for sources in transit. Best Theratronics requires that a driver be within view of the truck at all times. For any shipment over 10 hours, Best Theratronics uses a 2 driver system. This allows for 1 driver to remain with the truck at all times. The addition of a locking device on the container would not provide any additional security. The addition of a locking device would require a modification to all of our transport containers. This would be a significant undertaking.	Comment noted, Text added in section 3.2.5 regarding “containers over 500 kg”. During transport, the large transport containers over 500 kg are secured with several bolts and the container is chained and locked to the deck of the transport vehicles which is considered equivalent.
116	4.2.1.3	David Knight	DND/CF DGNS	Government	For Category 1 or 2 sealed sources the requirement for the licensee to verify that the carrier: maintains constant control and/or surveillance ... This requirement will be difficult to comply with by a licensee unless the licensee is overseeing the carrier 24/7. A better action may be to verify the establishment of constant control and/or surveillance.	Text revised, from “maintains”” to “establishes”.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
117	4.2.2	NWMD	Ontario Power Generation (OPG)	Industry	If a licensee uses an external carrier, does the licensee have to provide the security awareness training or is it the responsibility of the carrier? Please clarify.	Section 4.2.2 amended to remove reference to the licensee. “Security awareness should be provided to all individuals engaged in the handling or transport of sealed source. “
118	4.2.2	NWMD	Ontario Power Generation (OPG)	Industry	Awkward wording in “verify that . . . all persons employed by the carrier transporting the sealed sources have successfully completed security screening”. Suggestion: Reword to say “all persons employed by the carrier and who will be involved in transporting the sealed sources . . . “	Section 4.2.2 amended to specify “all of the carrier’s employees who are involved in transporting the sealed sources...”.
119	4.2.2	NWMD	Ontario Power Generation (OPG)	Industry	Specifies inspection and testing requirements for licensee’s transport vehicles. However, a license is not required to transport most sealed sources. A licensee could hire a carrier to transport their material in the carrier’s vehicle, and that vehicle would not have any requirement for the security devices to be inspected or tested. Suggestion: Add wording to address this scenario.	Text in section 4.2.2 amended to address this scenario.
120	4.3.1	Joe Boyadjian, Murray S. Morison	Bruce Power	Industry	Requirements for review of transportation security plan for Category 2 is unclear. Bruce Power recommends the RD be revised to be clear regarding who must review the Category 2 transportation security plan; is it the CNSC or the licensee? And, define what is meant to “regular basis” for the review of Category 2 sealed source response plans.	Agree –section 4.3.1 amended. The transport security plan should be reviewed annually and updated if required. A category 2 transport security plan will be retained by the licensee for inspection while category 1 security plans will be approved by CNSC staff.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
121	4.3.1	Richard Wassenaar, Director of Compliance	Best Theratronics Ltd.	Industry	<p>This section describes the requirement for a transportation security plan. Best Theratronics is in full agreement for the need for licenses to implement a Transport Security Plan. Best Theratronics has had such a plan since 2008 as required to meet the security orders set out in our USNRC license. This security plan has been reviewed and audited on several occasions by the USNRC. However, RD/GC-338 requires that a transport security plan be developed for each shipment and submitted to the CSNC at least 60 days prior to the anticipated shipment date. The draft document lists the planned route and alternate routes be listed in the submitted transportation security plan. This requirement would not be practical given the number of Category 1 and 2 shipments Best Theratronics makes. This would significantly, and we believe, unnecessarily, increase the workload for both Best Theratronics and the CNSC. As well, the proposed ship date is typically only known approximately 2 weeks before the date. Routes and shipping dates are not finalized until a week or two prior to shipment. It is not possible to submit this information 60 days prior to the expected ship date. Best Theratronics recommends that a general Transport Security Plan be implemented and approved by the CNSC. The information in the Transport Security Plan would be items a. through h. of section 4.3.2. This information would not change from shipment to shipment, and so it makes little sense to continue to submit this to the CNSC for review. Given the number of shipments Best Theratronics undertakes, the CNSC could potentially be reviewing the same information 3 or 4 times a</p>	<p>Comment noted and text amended in section 4.3.1.</p> <p>For transport of Category 1 sources,</p> <ul style="list-style-type: none"> ▪ the licensee shall implement enhanced security measures and submit a preliminary Transport Security Plan to the CNSC at least 60 days before the anticipated date of shipment, providing all available information, for approval by the Commission Tribunal or a designated officer authorized by the Commission Tribunal ▪ the preliminary Transport Security Plan shall be reviewed annually and updated if required ▪ a final Transport Security Plan, including the supplementary information unique to each shipment, shall be submitted to CNSC 48 hours before the shipment

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					month, on average. The additional information that is unique to each shipment is regarding the planned route (items i. and j. of section 4.3.2). This information can be submitted 48 hours prior to shipment. This would be consistent with the requirements for transportation of Category 1 or 2 sources through the US, as required by individual states.	
122	4.3.1	Michael Epp, Manager, Corporate Security	Nordion	Industry	<p>Regarding the text « For Cat 1 shipments, shall implement enhanced security measures and submit a specific Transport Security Plan to the CNSC at least 60 days before the anticipated shipment, for approval...»</p> <p>Includes a requirement for route and schedule submission.</p> <p>The requirement to submit the security plan for each shipment 60 days in advance, as outlined in the draft, is not practical and introduces OPSEC risks.</p> <p>Much of the required information is not firmed up until a few weeks in advance of the shipment date. This is particularly true for shipments into the USA where coordination with various state agencies is required and routing and itinerary plans change frequently. The USNRC only requires submission of advanced notice 7 days in advance of the shipment.</p> <p>The draft does not include a mechanism for revisions to the submitted plan. Changes even in the days leading up to the shipment occur and there must be a means to revise the plan.</p>	<p>Comment noted and text amended in section 4.3.1.</p> <p>See response to comment #121.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					<p>Much of the information required to be submitted as per the draft will be the same for each shipment. Why does it need approval each shipment? This may make sense for a licensee who does infrequent shipments, but for one that ship regularly it doesn't.</p> <p>Lastly, this requirement introduces risks to operations security because of the increase in the amount and frequency of sensitive information transmitted / couriered and the length of time it exists in advance of the actual shipment.</p> <p>We suggest that a better approach may be for licensees to submit a generic transportation security plan for review and approval annually and then submit route, driver, shipment and itinerary information to CNSC 7 days in advance of the shipment date. This would mirror the NRC process which has been proven effective and will be a more efficient process for sharing accurate information with both regulators.</p>	
123	Lexique	[5 physiciens/ physiciennes]	AQPMC (Association québécoise des physiciens médicaux cliniques)	Industrie	La définition d'une « source de catégorie 2 » donne en exemple une source employée dans le cadre de la curiethérapie à débit de dose élevé ou moyen. Selon le tableau A, cet exemple appartient plutôt à la catégorie 3. Une correction est de mise.	Merci . Correction effectuée.

Summary: 123 comments from 21 reviewers. There are also 4 classified comments received from one reviewer (total 127 comments from 22 reviewers)
End of table for consultation

Comments received during « feedback on the comments received » / Commentaires reçus lors de la période d'observations sur les commentaires reçus :

	Section	Name	Organization	Organization Type	Comment	CNSC Response
A	All	Barry Fleet, Manager, Nuclear Regulatory Affairs	Ontario Power Generation (OPG)	Industry	OPG reviewed the comments provided by other licensed nuclear power plant operators. No issues or concerns were identified with any of those comments.	Thank you for reviewing the comments and providing feedback.
B	All	Chantal Blais, Spécialist conformité	Héma-Québec	Industrie	Pourriez-vous svp m'informer la date prévue de la mise en vigueur du document officiel « Mesures de sécurité pour les sources scellées » ?	Il est planifié que le document <i>Mesures de sécurité pour les sources scellées</i> sera publié officiellement à la fin de l'hiver 2012/13.
C	All	Patrick Harder, Radiation Safety Officer	University of Calgary	Industry	The University of Calgary understands the need for a graded level of security for Higher Activity radioactive sources, the document has been a long time in coming. There are specific issues that the University has identified based upon the comments of others.	Thank you for reviewing the document and providing feedback on the comments.
D	All	Barry Fleet, Manager, Nuclear Regulatory Affairs	Ontario Power Generation (OPG)	Industry	OPG would like to take this opportunity to reiterate a key assumption that forms the basis for all of our comments provided in Reference 1 (attached [note: see Detailed Comments Table, above]). The key assumption is that OPG has taken credit for the extensive security measures implemented at protected area boundaries of the Pickering and Darlington Nuclear Generating Stations to meet the requirements of the Nuclear Security Regulations for high security sites. These measures include, but are not limited to, ongoing protected area patrols, site intrusion detection, assessment, and alarm systems, and access/egress control practices currently in place. Given that the applicable nuclear materials, i.e., sealed sources addressed by RD-338 lie within the protected area of OPG high security sites, the requirements of RD-338 are considered to be met without the need to	This will require a specific assessment for each unique situation. If high-risk radioactive sources are stored at a high-security nuclear site (e.g., nuclear power plant) some of the security requirements that are in place will provide the required level of protection as outlined in <i>Security Measures for Sealed Sources</i> . In cases of high-security nuclear sites, the expectation is that the licensee would provide the required details as to how they meet all of the applicable the requirements.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
					<p>undertake any significant projects or modifications to achieve compliance.</p> <p>Should this key assumption not be considered appropriate, OPG's response to this draft regulatory document would be drastically different and require significant further review.</p>	
E	2.2	Patrick Harder, Radiation Safety Officer	University of Calgary	Industry	<p>Cameco response to item 2.2 - Though source categories 4 and 5 are mentioned, the threshold between these categories is never specified</p> <p>The CNSC document should actually REPRODUCE the values and table from the reference IAEA TECDOC-1344 and list some of the device usage and practices (page 8) along with the activity limits for each isotope (pages 15 and 20 along with the table of relative ranking of practices based upon A/D page 21). The inclusion of that information will help to actual then define the requirements for RD/GD-338 Table B – instead of the wording “best practice” which with most of the Category 4 and 5 common use are not practical as the radiation source is a component that is bolted on or is a component the fits within a device (the device is not typically a portable unit).</p>	<p>From a security perspective category 4 and 5 are considered to be the least dangerous. Table A applies to radioactive sources that may pose a significant risk to individuals, society and the environment (i.e. Category 1-3).</p> <p>A new table was added in Appendix C to provide clarification on the category of most commonly used radioactive sources including category 4 and 5.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
F	Table B	Patrick Harder, Radiation Safety Officer	University of Calgary	Industry	Dave Griffith response to Table B item about “good quality padlock” -- his suggestion to use the lock standard as a level of minimum requirement is takes the ambiguity out of the table.	<p>Comments noted. Section 3.2.4.2 was amended to replace “good” with “high” and “high-security series”</p> <p>However, because <i>Security Measures for Sealed Sources</i> applies the concept of the graded approach, it is up to the licensee to use a high security lock or high security padlock that is commensurate with the category of their source. CNSC’s approach is performance based for this requirement.</p> <p>CNSC staff is available to provide additional guidance in this area if required.</p>
G	Tableau B (3.1.2)	Chantal Blais, Spécialist conformité	Héma-Québec	Industrie	<p>...j’aurais des questionnements entourant les informations retrouvées au point « Entretien et essais » du tableau B de la page 10.</p> <ul style="list-style-type: none"> - J’aimerais svp connaitre quels sont les essais et les entretiens visés par votre délai de réalisation « au moins tous les 6 mois »? - Est-ce que tous les entretiens/essais sont concernés par ce délai? - N’y aurait-il pas des essais/entretiens ayant un délai de réalisation « au moins tous les 12 mois »? Comme par exemple l’essais de fuite(mesure du débit de dose extérieur)? - Quel est le délai de jeu acceptable que sous entend le « au moins » du point de vue du règlement? - Et pourriez-vous aussi svp m’indiquer la justification de ce délai de 6 mois? Et 12 mois? 	<p>Les détecteurs et/ou composants du système de sécurité doivent êtres testé à chaque 6 mois pour vérifier leur performance. Ce délai est le seuil minimal. Le titulaire de permis peut choisir de tester ces systèmes à l’intérieur de ces 6 mois (ex : à chaque mois, ou trimestre), 12 mois est un délai trop long pour s’assurer que les systèmes de détection d’intrusion fonctionnent adéquatement.</p> <p>Le personnel de la CCSN est disponible pour offrir plus d’information si nécessaire.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
H	3.3.6.1	Michael Epp, Greg Fulford	Nordion Inc.	Industry	<p>Proposed new wording:</p> <p>3.3.6.1 Requirements for inventory control As required, The licensee shall conduct inventory checks , to verify that the source(s) are secure and have not been altered or subject to illegal access or unauthorized removal. These inventory checks shall comply with section 36(1)(a) of the Nuclear Substances and Radiation Devices Regulations.</p>	<p>No change.</p> <p>The licensee is required to establish and maintain a list or inventory of radioactive source (s) under its responsibility. CNSC uses a performance based approach to ensure the licensee conducts “regular” verification that the radioactive source(s) are present in its authorized location. The frequency and method to do this verification depends on the nature and operations of the licensee.</p> <p>If a license wishes to propose an alternative method of carrying an inventory check, they are free to do so. CNSC staff will evaluate the proposed procedure to ensure it provides necessary security.</p>

	Section	Name	Organization	Organization Type	Comment	CNSC Response
I	3.3.6.2	Michael Epp, Greg Fulford	Nordion Inc.	Industry	<p>Proposed new wording:</p> <p>3.3.6.2 Guidance for inventory control The operator should establish and maintain a list of sealed sources under their responsibility. Inventory verification can be used as part of detection measures. Regular inventory checking should consist of measures to ensure that the sources are present and have not been tampered with. Such measures could include physical checks that the source is in place, verification during on-site movement or transfer, remote observation through closed circuit television (CCTV), or verification of seals or other tamper devices on storage containers and facilities. A process for inventory control should be in place, to ensure a robust verification process.</p>	Comment noted and text in section 3.3.6.2 amended.

Summary: 7 feedback comments from 4 reviewers.
End of table for feedback